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#5

SEQUENCE LISTING

<110> University of Utah Research Foundation Cognetix, Inc. Olivera, Baldomero M. McIntosh, J, Michael Watkins, Maren Garrett, James E. Cruz, Lourdes J. Grilley, Michelle Schoenfeld, Robert M. Walker, Craig Shetty, Reshma Jones, Robert M. <120> Cone Snail Peptides <130> 2314-249 <150> US 60/267,408 <151> 2001-02-09 <160> 638 <170> PatentIn version 3.0 <210> 1 <211> 290 <212> DNA <213> Conus ammiralis <220> <221> CDS <222> (4)..(231) <400> 1 atc atg gag aaa ctg ata att ctg ctt ctt gtt gct gct gta ctg atg Met Glu Lys Leu Ile Ile Leu Leu Leu Val Ala Ala Val Leu Met 1 tcg acc cag gcc ctg gtt gaa cgt gct gga gaa aac cgc tca aaq gaq 96 Ser Thr Gln Ala Leu Val Glu Arg Ala Gly Glu Asn Arg Ser Lys Glu 20 aac atc aat ttt tta tta aaa aga aga gct gct gac agg ggg atg 144 Asn Ile Asn Phe Leu Leu Lys Arg Lys Arg Ala Ala Asp Arg Gly Met 35 tgg ggc gat tgc aaa gat ggg tta acg aca tgt ttt gcg ccc tca gag 192 Trp Gly Asp Cys Lys Asp Gly Leu Thr Thr Cys Phe Ala Pro Ser Glu 50 tgt tgt tct gag gat tgt gaa ggg agc tgc acg atg tgg tgatgacctc 241 Cys Cys Ser Glu Asp Cys Glu Gly Ser Cys Thr Met Trp 65 70 290 tgaccacaag ccatctgaca tcaccactct cctcttcaga ggcttcaag <210> 2 <211> 76

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Gly Asp Cys Lys Asp Gly Leu Thr Thr Cys Phe Ala Pro Ser Glu Cys
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        (D or L) or bromo-Trp (D or L)
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tcg acc cag gcc ctg cct caa ggt ggt gga gaa aaa cgc cca agg gag
                                                                      96
Ser Thr Gln Ala Leu Pro Gln Gly Gly Gly Glu Lys Arg Pro Arg Glu
aat atc aga ttt tta tca aaa aga aag aca aat gct gag cgt tgg agg
                                                                     144
Asn Ile Arg Phe Leu Ser Lys Arg Lys Thr Asn Ala Glu Arg Trp Arg
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                                40
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tgc tgt act gat gtt tgt tac aaa agg gac tac tgc gcc ttg tgg gat
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Cys Cys Thr Asp Val Cys Tyr Lys Arg Asp Tyr Cys Ala Leu Trp Asp
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Cys Thr Asp Val Cys Tyr Lys Arg Asp Tyr Cys Ala Leu Trp Asp Asp
Arg
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       9 and 33 is Trp (D or L) or bromo-Trp (D or L); Xaa at residues 2
       5 and 29 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-T
       yr or O-phospho-Tyr
Xaa Arg Xaa Gly Ser Cys Thr Ser Xaa Leu Ala Thr Cys Thr Gln Asp
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Xaa Asp Asp Arg
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                                                                       96
tcg acc cag gcc ctg ttt caa gaa aaa cgc aca atg aag aag atc gat
Ser Thr Gln Ala Leu Phe Gln Glu Lys Arg Thr Met Lys Lys Ile Asp
                20
ttt tta tca aag gga aag gca gat gct gag aag cag agg aag cgc aat
                                                                      144
Phe Leu Ser Lys Gly Lys Ala Asp Ala Glu Lys Gln Arg Lys Arg Asn
            35
                                 40
                                                     45
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                                                                      192
Cys Ser Asp Asp Trp Gln Tyr Cys Glu Ser Pro Ser Asp Cys Cys Ser
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                            55
                                                 60
                                                                      239
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Trp Asp Cys Asp Val Val Cys Ser Gly
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Thr Gln Ala Leu Phe Gln Glu Lys Arg Thr Met Lys Lys Ile Asp Phe
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Ser Asp Asp Trp Gln Tyr Cys Glu Ser Pro Ser Asp Cys Cys Ser Trp
Asp Cys Asp Val Val Cys Ser Gly
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is Pro or hydroxy-Pro; Xaa at residues 6 and 18 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 8 is Tyr, 125I-Tyr, mono-iod o-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

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Ser Xaa Asp Cys Asp Val Val Cys Ser
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                                        10
tcg atc cag gcg gta aat caa gaa aaa cac caa cgg gca aag atc aac
                                                                       96
Ser Ile Gln Ala Val Asn Gln Glu Lys His Gln Arg Ala Lys Ile Asn
                20
                                    25
ttg ctt tca aag aga aag cca cct gct gag cgt tgg tgg cgg tgg gga
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Leu Leu Ser Lys Arg Lys Pro Pro Ala Glu Arg Trp Trp Arg Trp Gly
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gga tgc atg gct tgg ttt ggg aaa tgt tcg aag gac tcg gaa tgt tgt
                                                                     192
Gly Cys Met Ala Trp Phe Gly Lys Cys Ser Lys Asp Ser Glu Cys Cys
                            55
                                                                     240
tet aat agt tgt gae ata aeg ege tge gag tta atg ega tte eea eea
Ser Asn Ser Cys Asp Ile Thr Arg Cys Glu Leu Met Arg Phe Pro Pro
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gac tgg tgacatcgac actctcctgt tcagagtctt caag
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Asp Trp
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Ile Gln Ala Val Asn Gln Glu Lys His Gln Arg Ala Lys Ile Asn Leu
Leu Ser Lys Arg Lys Pro Pro Ala Glu Arg Trp Trp Arg Trp Gly Gly
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       idues 36 and 37 is Pro or hydroxy-Pro; Xaa at residues 1, 2, 4, 1
       O and 39 is Trp (D or L) or bromo-Trp (D or L)
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Asp Ser Xaa Cys Cys Ser Asn Ser Cys Asp Ile Thr Arg Cys Xaa Leu
Met Arg Phe Xaa Xaa Asp Xaa
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                                        10
                                                            15
tcg acc cag gcc ctg att caa ggt ggt gga gac gaa cgc caa aag gca
                                                                       96
Ser Thr Gln Ala Leu Ile Gln Gly Gly Gly Asp Glu Arg Gln Lys Ala
                20
                                    25
aag atc aac ttt ctt tca agg tcg gac cgc gat tgc agg ggt tac gat
                                                                     144
Lys Ile Asn Phe Leu Ser Arg Ser Asp Arg Asp Cys Arg Gly Tyr Asp
            35
gcg ccg tgt agc tct ggc gcg cca tgt tgt gat tgg tgg aca tgt tca
                                                                     192
Ala Pro Cys Ser Ser Gly Ala Pro Cys Cys Asp Trp Trp Thr Cys Ser
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gca cga acc ggg cgc tgt ttt taggctgacc acaagccatc cgacatcacc
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Ile Asn Phe Leu Ser Arg Ser Asp Arg Asp Cys Arg Gly Tyr Asp Ala
                            40
Pro Cys Ser Ser Gly Ala Pro Cys Cys Asp Trp Trp Thr Cys Ser Ala
Arg Thr Gly Arg Cys Phe
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       8 and 19 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 5
       is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-p
       hospho-Tyr
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Asp Cys Arg Gly Xaa Asp Ala Xaa Cys Ser Ser Gly Ala Xaa Cys Cys
                5
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Asp Xaa Xaa Thr Cys Ser Ala Arg Thr Gly Arg Cys Phe
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      DNA
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                                        10
tcg acc cag gcc gtg ctt caa gaa aaa cgc cca aag gag aag atc aag
                                                                      96
Ser Thr Gln Ala Val Leu Gln Glu Lys Arg Pro Lys Glu Lys Ile Lys
                20
                                    25
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ttt tta tca aag aaa aag aca gat gct gag aag cag cag aag cgc ctt
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Phe Leu Ser Lys Lys Thr Asp Ala Glu Lys Gln Gln Lys Arg Leu
            35
tgc ccg gat tac acg gag cct tgt tca cat gcc cat gaa tgc tgt tca
                                                                     192
Cys Pro Asp Tyr Thr Glu Pro Cys Ser His Ala His Glu Cys Cys Ser
        50
                            55
tgg aat tgt cat aat ggg cac tgc acg gga tgaactcgga ccacaagcca
                                                                     242
Trp Asn Cys His Asn Gly His Cys Thr Gly
tcgacatcat cactctcctg ttcagagtct tcaag
                                                                     277
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                                    10
Thr Gln Ala Val Leu Gln Glu Lys Arg Pro Lys Glu Lys Ile Lys Phe
Leu Ser Lys Lys Lys Thr Asp Ala Glu Lys Gln Gln Lys Arg Leu Cys
Pro Asp Tyr Thr Glu Pro Cys Ser His Ala His Glu Cys Cys Ser Trp
Asn Cys His Asn Gly His Cys Thr Gly
<210> 18
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       dues 3 and 8 is Pro or hydroxy-Pro; Xaa at residue 18 is Trp (D o
       r L) or bromo-Trp (D or L); Xaa at residue 5 is Tyr, 125I-Tyr, mo
      no-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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tcg acc cag gcc atg ttt caa ggt gat gga gaa aaa tcc cgg aaa gcg
                                                                      96
Ser Thr Gln Ala Met Phe Gln Gly Asp Gly Glu Lys Ser Arg Lys Ala
gag atc aac ttt tct aaa aca aga aat ttg gcg aga aac aag cag aaa
                                                                     144
Glu Ile Asn Phe Ser Lys Thr Arg Asn Leu Ala Arg Asn Lys Gln Lys
cgc tgc agt agt tgg gca aag tat tgt gaa gtt gac tcg gaa tgc tgt
                                                                     192
Arg Cys Ser Ser Trp Ala Lys Tyr Cys Glu Val Asp Ser Glu Cys Cys
tcc gaa cag tgt gta agg tct tac tgc gcg atg tgg tgatgacctc
                                                                     238
Ser Glu Gln Cys Val Arg Ser Tyr Cys Ala Met Trp
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                                25
Ile Asn Phe Ser Lys Thr Arg Asn Leu Ala Arg Asn Lys Gln Lys Arg
Cys Ser Ser Trp Ala Lys Tyr Cys Glu Val Asp Ser Glu Cys Cys Ser
Glu Gln Cys Val Arg Ser Tyr Cys Ala Met Trp
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        (D or L) or bromo-Trp (D or L);
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Xaa Gln Cys Val Arg Ser Xaa Cys Ala Met Xaa
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ctg ctg ttt gcc ttg ggc aac ttt gtt gtg gtc cag tca gga cag ata
                                                                       96
Leu Leu Phe Ala Leu Gly Asn Phe Val Val Val Gln Ser Gly Gln Ile
                                    25
aca aga gat gtg gac aat gga cag ctc acg gac aac cgc cgt aac ctg
                                                                     144
Thr Arg Asp Val Asp Asn Gly Gln Leu Thr Asp Asn Arg Arg Asn Leu
caa tcg aag tgg aag cca gtg agt ctc ttc atg tca cga cgg tct tgt
                                                                     192
Gln Ser Lys Trp Lys Pro Val Ser Leu Phe Met Ser Arg Arg Ser Cys
aac aat tot tgc aat gag cat toc gat tgc gaa toc cat tgt att tgc
                                                                     240
Asn Asn Ser Cys Asn Glu His Ser Asp Cys Glu Ser His Cys Ile Cys
                        70
acg ttt agc gga tgc aaa att att ttg ata taaacggatt gagtttgctc
                                                                     290
Thr Phe Ser Gly Cys Lys Ile Ile Leu Ile
                    85
gtcaacaaga tgtcgcacta cagctcctct ctacagtgtg tacatcgacc aaacqacqca
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tettttattt etttgtetgt tgtatttgtt tteetgtgtt eataaegtae agageeettt
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Arg Asp Val Asp Asn Gly Gln Leu Thr Asp Asn Arg Arg Asn Leu Gln
Ser Lys Trp Lys Pro Val Ser Leu Phe Met Ser Arg Arg Ser Cys Asn
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Asn Ser Cys Asn Glu His Ser Asp Cys Glu Ser His Cys Ile Cys Thr
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Phe Ser Gly Cys Lys Ile Ile Leu Ile
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       1
ctg ctg ttt gcc ttg ggc aac ttt gtt gtg gtc cag tca gga cag ata
                                                                      96
Leu Leu Phe Ala Leu Gly Asn Phe Val Val Val Gln Ser Gly Gln Ile
                                                            30
15
                    20
aca aga gat gtg gac aat gga cag ctc acg gac aac cgc cgt aac ctg
                                                                     144
Thr Arg Asp Val Asp Asn Gly Gln Leu Thr Asp Asn Arg Arg Asn Leu
                35
                                    40
caa tcg aag tgg aag cca gtg agt ctc ttc atg tca cga cgg tct tgt
                                                                     192
Gln Ser Lys Trp Lys Pro Val Ser Leu Phe Met Ser Arg Arg Ser Cys
            50
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aac aat tot tgc aat gag cat toc gat tgc gaa toc cat tgt att tgc

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Leu Phe Leu Thr Ala Cys Gln Leu Thr Thr Ala Asp Asp Ser Arg Gly
acg cag aag cat ggt gcc ctg aga tcg acc acc aaa ctc tcc atg ttg
                                                                     147
Thr Gln Lys His Gly Ala Leu Arg Ser Thr Thr Lys Leu Ser Met Leu
                            35
act cgg ggc tgc acg cct cct ggt gga gtt tgt ggt tat cat ggt cac
                                                                     195
Thr Arg Gly Cys Thr Pro Pro Gly Gly Val Cys Gly Tyr His Gly His
    45
tgc tgc gat ttt tgc gat acg ttc ggc aat tta tgt gtg agt ggc
                                                                     240
Cys Cys Asp Phe Cys Asp Thr Phe Gly Asn Leu Cys Val Ser Gly
                    65
tgacccggca tetgacettt ecceettett tgetecaeta teetttteet geetgagtee
                                                                     300
tocatacetg agagetgtca tgaaccactc aacacctact etteeggagg tttetgagga
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gctgcattga aataaaagcc gcattgc
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Cys Gln Leu Thr Thr Ala Asp Asp Ser Arg Gly Thr Gln Lys His Gly
                                25
Ala Leu Arg Ser Thr Thr Lys Leu Ser Met Leu Thr Arg Gly Cys Thr
        35
Pro Pro Gly Gly Val Cys Gly Tyr His Gly His Cys Cys Asp Phe Cys
Asp Thr Phe Gly Asn Leu Cys Val Ser Gly
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<223> Xaa at residues 4 and 5 is Pro or hydroxy-Pro; Xaa at residue 11
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is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-p hospho-Tyr <400> 30 Gly Cys Thr Xaa Xaa Gly Gly Val Cys Gly Xaa His Gly His Cys Cys Asp Phe Cys Asp Thr Phe Gly Asn Leu Cys Val Ser 20 <210> 31 <211> 375 <212> DNA <213> Conus arenatus <220> <221> CDS <222> (24)..(260) <400> 31 gacaggattg aacaaaattc agg atg tca gga ttg gga atc atg gtg cta acc 53 Met Ser Gly Leu Gly Ile Met Val Leu Thr ctt cta ctt ctt gtg ttc atg gca acc agt cat cag gat gca gga gag 101 Leu Leu Leu Val Phe Met Ala Thr Ser His Gln Asp Ala Gly Glu 15 aag aag gcg atg caa agg gac gca atc aac gtc aga cgg aga aga tca 149 Lys Lys Ala Met Gln Arg Asp Ala Ile Asn Val Arg Arg Arg Ser 30 35 ctc act cgg gga gta gta act gag gcg tgc gaa gag tcc tgt gag gag 197 Leu Thr Arg Gly Val Val Thr Glu Ala Cys Glu Glu Ser Cys Glu Glu 50 gag gaa aag cac tgc tgc cac gta aat aat gga gta ccc tct tgt qcc 245 Glu Glu Lys His Cys Cys His Val Asn Asn Gly Val Pro Ser Cys Ala gtt ata tgc tgg gga tagtttctcg cacactgtct cattcattat tttatcagta 300 Val Ile Cys Trp Gly caagtgtaaa cgagacatgt cagaaagtcg aaggttgtgc gtatttgata agtattgttt 360 actgggatga acgga 375 <210> 32 <211> 79 <212> PRT <213> Conus arenatus <400> 32 Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Val Phe 5 Met Ala Thr Ser His Gln Asp Ala Gly Glu Lys Lys Ala Met Gln Arg

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Thr Glu Ala Cys Glu Glu Ser Cys Glu Glu Glu Lys His Cys Cys
His Val Asn Asn Gly Val Pro Ser Cys Ala Val Ile Cys Trp Gly
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       y-Glu; Xaa at residue 25 is Pro or hydroxy-Pro; Xaa at residue 32
        is Trp (D or L) or bromo-Trp (D or L)
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Cys Cys His Val Asn Asn Gly Val Xaa Ser Cys Ala Val Ile Cys Xaa
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                                                                     101
Leu Leu Leu Val Phe Met Ala Thr Ser His Gln Asp Ala Gly Glu
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aag cag gcg acg gaa agg gac gca atc aac atc aga tgg aga aga tca
                                                                     149
Lys Gln Ala Thr Glu Arg Asp Ala Ile Asn Ile Arg Trp Arg Arg Ser
cgc act cgg aga ata gta act gag gcg tgc gaa gag tcc tgt gag gac
                                                                     197
Arg Thr Arg Arg Ile Val Thr Glu Ala Cys Glu Glu Ser Cys Glu Asp
gag gaa aag cac tgc tgc cac gta aat aat gga gta ccc tct tgt gcc
                                                                     245
Glu Glu Lys His Cys Cys His Val Asn Asn Gly Val Pro Ser Cys Ala
gtt ata tgc tgg gga tagtttctcg cacactgtct cattcattat tttatcagta
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Val Ile Cys Trp Gly
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Asp Ala Ile Asn Ile Arg Trp Arg Arg Ser Arg Thr Arg Arg Ile Val
Thr Glu Ala Cys Glu Glu Ser Cys Glu Asp Glu Glu Lys His Cys Cys
His Val Asn Asn Gly Val Pro Ser Cys Ala Val Ile Cys Trp Gly
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      (1)..(32)
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       u; Xaa at residue 25 is Pro or hydroxy-Pro; Xaa at residue 32 is
       Trp (D or L) or bromo-Trp (D or L)
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Ile Val Thr Xaa Ala Cys Xaa Xaa Ser Cys Xaa Asp Xaa Lys His
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                          Met Ser Glu Leu Gly Ile Met Val Leu Thr
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                                          5
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ctt cta ctt ctt gtg ttc ctg gta acc agt cat cag gat gca gga gag Leu Leu Leu Val Phe Leu Val Thr Ser His Gln Asp Ala Gly Glu 15 20 25	01										
aag cag gcg acg gaa agg gac gca atc aac atc aga tgg aga aga tca Lys Gln Ala Thr Glu Arg Asp Ala Ile Asn Ile Arg Trp Arg Arg Ser 30 35 40	49										
ctc act cgg aga ata gta act gag gcg tgc gaa gag cac tgt gag gat Leu Thr Arg Arg Ile Val Thr Glu Ala Cys Glu Glu His Cys Glu Asp 45 50 55	97										
gag gaa cag ttc tgc tgc ggc tta gag aat gga caa ccc ttt tgt gcc Glu Glu Gln Phe Cys Cys Gly Leu Glu Asn Gly Gln Pro Phe Cys Ala 60 65 70	45										
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Leu Val Thr Ser His Gln Asp Ala Gly Glu Lys Gln Ala Thr Glu Arg 20 25 30											
Asp Ala Ile Asn Ile Arg Trp Arg Arg Ser Leu Thr Arg Arg Ile Val 35 40 45											
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<400> 39 Ile Val Thr Xaa Ala Cys Xaa Xaa His Cys Xaa Asp Xaa Xaa Gln Phe 1 5 10 15											

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					caa Gln												149
					gta Val												197
		_	_		tgc Cys	_									_	-	245
	-		tgc Cys		gga Gly	tagt	ttt	ctg t	cacad	ctgt	ct ta	attca	attat	tt!	tatca	agta	300
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	Met	Ala	Thr	Ser 20	His	Gln	Asp	Ala	Gly 25	Glu	Lys	Lys	Val	Met 30	Gln	Arg	
	Asp	Ala	Ile 35	Asn	Val	Arg	Arg	Arg 40	Arg	Ser	Arg	Thr	Arg 45	Arg	Val	Val	
	Thr	Gly 50	Ala	Cys	Glu	Glu	His 55	Cys	Glu	Asp	Glu	Glu 60	Lys	His	Cys	Cys	
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Cys Cys Gly Leu Xaa Asn Gly Gln Xaa Phe Cys Ala Arg Leu Cys Leu
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ace cag gtc atg gtt caa ggt gac gga gat caa cct gca gct cgc aat
                                                                      96
Thr Gln Val Met Val Gln Gly Asp Gly Asp Gln Pro Ala Ala Arg Asn
gca gtg cca aaa gac gat aac cca gat gga gcg agt gga aag ttc atg
                                                                     144
Ala Val Pro Lys Asp Asp Asn Pro Asp Gly Ala Ser Gly Lys Phe Met
aat gtt cta cgt cgg tct gga tgt ccg tgg cat cct tgg tgt ggc
                                                                     189
Asn Val Leu Arg Arg Ser Gly Cys Pro Trp His Pro Trp Cys Gly
                                                                     219
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       and 8 is Trp (D or L) or bromo-Trp (D or L)
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acc cag gtc atg gtt caa ggt gac gga gat caa cct gca gct cgc aat
                                                                      96
Thr Gln Val Met Val Gln Gly Asp Gly Asp Gln Pro Ala Ala Arg Asn
            20
gca gtg cca aaa gac gat aac cca gat gga gcg agt gga aag ttc atg
                                                                     144
Ala Val Pro Lys Asp Asp Asn Pro Asp Gly Ala Ser Gly Lys Phe Met
                                                                     189
aat gtt cta cgt cgg tct gga tgt ccg tgg cgc cct tgg tgt ggc
Asn Val Leu Arg Arg Ser Gly Cys Pro Trp Arg Pro Trp Cys Gly
tgatcggaat ccacgattgc aatgacagcc
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      and 9 is Trp (D or L) or bromo-Trp (D or L)
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                                   10
                                                                     96
acc cag gtc atg gtt caa ggt gac gga gat caa cct gca ggt cga gat
Thr Gln Val Met Val Gln Gly Asp Gly Asp Gln Pro Ala Gly Arg Asp
                               25
gca gtt cca aga gac gat aac cca ggt gga acg agt gga aag ttc atg
                                                                    144
Ala Val Pro Arg Asp Asp Asn Pro Gly Gly Thr Ser Gly Lys Phe Met
                           40
                                                                    189
aat gct cta cgt caa tat gga tgt ccg gtg ggt ctt tgg tgt gac
Asn Ala Leu Arg Gln Tyr Gly Cys Pro Val Gly Leu Trp Cys Asp
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Arg Asp Asp Ser Pro Asp Gly Met Ser Gly Gly Phe Met Asn Val Pro
Arg Arg Ser Gly Cys Pro Trp Gln Pro Trp Cys Gly
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       and 8 is Trp (D or L) or bromo-Trp (D or L)
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Ser Gly Cys Xaa Xaa Gln Xaa Xaa Cys
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acc cag qcc atg qtt caa qat caa cct qca gqt cqa qat qca qtt cca
                                                                      96
Thr Gln Ala Met Val Gln Asp Gln Pro Ala Gly Arg Asp Ala Val Pro
aga gac gat aac cca ggt gga acg agt gga aag ttc gtg aat gct caa
                                                                     144
Arg Asp Asp Pro Gly Gly Thr Ser Gly Lys Phe Val Asn Ala Gln
                            40
cgt caa tat gga tgt ccg ccg ggt ctt tgg tgt cac tgatcagaat
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Arg Gln Tyr Gly Cys Pro Pro Gly Leu Trp Cys His
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ccacgattgc aatgacagcc
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Arg Asp Asp Asn Pro Gly Gly Thr Ser Gly Lys Phe Val Asn Ala Gln
Arg Gln Tyr Gly Cys Pro Pro Gly Leu Trp Cys His
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<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 5 and 6 is Pr
       o or hydroxy-Pro; Xaa at residue 9 is Trp (D or L) or bromo-Trp (
       D or L); Xaa at residue 2 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iod
       o-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Xaa Xaa Gly Cys Xaa Xaa Gly Leu Xaa Cys His
<210> 58
<211> 213
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      CDS
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1
atc cct tca gat cgt gca tct gat ggc agg aat gcc gca gtc aac gag
                                                                       96
Ile Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Val Asn Glu
            20
aga gcg cct tgg ctg gtc cct tcg aca atc acg act tgc tgt gga tat
                                                                      144
Arg Ala Pro Trp Leu Val Pro Ser Thr Ile Thr Thr Cys Cys Gly Tyr
                            40
                                                45
        35
aat ccg ggg aca atg tgc cct cct tgc agg tgc gat aat acc tgt
                                                                      189
Asn Pro Gly Thr Met Cys Pro Pro Cys Arg Cys Asp Asn Thr Cys
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taaccaaaaa aaaaaaaaaa aaaa
<210> 59
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<212> PRT

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Arg Ala Pro Trp Leu Val Pro Ser Thr Ile Thr Thr Cys Cys Gly Tyr
Asn Pro Gly Thr Met Cys Pro Pro Cys Arg Cys Asp Asn Thr Cys
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<213> Conus aurisiacus
<220>
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<223> Xaa at residues 2, 6, 17, 22 and 23 is Pro or hydroxy-Pro; Xaa at
       residue 3 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue
       15 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or
       O-phospho-Tyr
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Xaa Gly Thr Met Cys Xaa Xaa Cys Arg Cys Asp Asn Thr Cys
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                                                        15
gca cct ggc gtt gat gtc cta ccg aag acc gaa gat gat gtg ccc ctg
                                                                      96
Ala Pro Gly Val Asp Val Leu Pro Lys Thr Glu Asp Asp Val Pro Leu
            20
tca tct gtc tac gat aat aca aag agt atc cta cga gga ctt ctg gac
                                                                     144
Ser Ser Val Tyr Asp Asn Thr Lys Ser Ile Leu Arg Gly Leu Leu Asp
        35
                            40
                                                45
aaa cgt gct tgc tgt ggc tac aag ctt tgc tca cca tgt taaccagcat
                                                                     193
Lys Arg Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
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202
gaaggatcc
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       62
<211>
       61
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      PRT
<213>
      Conus bandanus
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Ala Pro Gly Val Asp Val Leu Pro Lys Thr Glu Asp Asp Val Pro Leu
Ser Ser Val Tyr Asp Asn Thr Lys Ser Ile Leu Arg Gly Leu Leu Asp
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Lys Arg Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
    50
                        55
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      11
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<213> Conus bandanus
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      (1)..(11)
      Xaa at residue 10 is Pro or hydroxy-Pro; Xaa at residue 5 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
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Ala Cys Cys Gly Xaa Lys Leu Cys Ser Xaa Cys
                5
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      359
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       Met Lys Leu Thr Cys Val Val Ile Ile Ala Ala Leu Phe Leu
       1
acg gcc tgt cag ctc aat aca gct gat gac tcc aga gat aag cag gag
                                                                       96
Thr Ala Cys Gln Leu Asn Thr Ala Asp Asp Ser Arg Asp Lys Gln Glu
                                        25
                                                            30
15
                    20
tac cgt gca gtg agg ttg aga gac gga atg cgg aat ttc aaa ggt tcc
                                                                      144
Tyr Arg Ala Val Arg Leu Arg Asp Gly Met Arg Asn Phe Lys Gly Ser
                                                        45
                35
                                    40
aaq cqc aac tqc qqq gaa caa qgt gaa ggt tgt gct act cgc cca tgc
                                                                      192
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Lys Arg Asn Cys Gly Glu Gln Gly Glu Gly Cys Ala Thr Arg Pro Cys 55 tgc tct ggt ctg agt tgc gtt ggc agc cgt cca gga ggc ctg tgc cag 240 Cys Ser Gly Leu Ser Cys Val Gly Ser Arg Pro Gly Gly Leu Cys Gln 70 tac ggc taatagtctg gcatctgata tttcccctct gcactctacc ttcttttgcc 296 Tyr Gly 80 tgatgcatgt ttacttgtgt gtggtcatga accactcagt agctacacct ccgaaqqacq 356 tgc 359 <210> 65 <211> 80 <212> PRT <213> Conus caracteristicus <400> 65 Met Lys Leu Thr Cys Val Val Ile Ile Ala Ala Leu Phe Leu Thr Ala 10 Cys Gln Leu Asn Thr Ala Asp Asp Ser Arg Asp Lys Gln Glu Tyr Arg 20 25 Ala Val Arg Leu Arg Asp Gly Met Arg Asn Phe Lys Gly Ser Lys Arg 40 Asn Cys Gly Glu Gln Gly Glu Cys Ala Thr Arg Pro Cys Cys Ser Gly Leu Ser Cys Val Gly Ser Arg Pro Gly Gly Leu Cys Gln Tyr Gly 75 <210> 66 <211> 31 <212> PRT <213> Conus caracteristicus <220> <221> PEPTIDE <222> (1)..(31)<223> Xaa at residues 4 and 7 is Glu or gamma-carboxy-Glu; Xaa at resid ues 13 and 25 is Pro or hydroxy-Pro; Xaa at residue 31 is Tyr, 12 5I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 66 Asn Cys Gly Xaa Gln Gly Xaa Gly Cys Ala Thr Arg Xaa Cys Cys Ser 15 Gly Leu Ser Cys Val Gly Ser Arg Xaa Gly Gly Leu Cys Gln Xaa 25 <210> 67 <211> 349 <212> DNA

<213> Conus caracteristicus

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Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Ile
ctg cca tcc agc cag cag gaa gga gat gtc cag gca aga aaa acg cac
                                                                       96
Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
ctg aag aga ggc ttc tac ggt act ctg gca atg tct acc aga gga tqc
                                                                      144
Leu Lys Arg Gly Phe Tyr Gly Thr Leu Ala Met Ser Thr Arg Gly Cys
                            40
tct ggc act tgc cat cgt cgt gag gac ggc aag tgt cgg ggt act tgc
                                                                      192
Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly Thr Cys
    50
                        55
gac tgc tcc gga tac agc tat tgt cgc tgc ggt gac gct cac cat ttt
                                                                      240
Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe
tac cga gga tgc acg tgt tcg tgt caa ggt tgattaattg actcttttaa
                                                                      290
Tyr Arg Gly Cys Thr Cys Ser Cys Gln Gly
ctcgttgaac gattgaaaaa aaaaatttta gagcaatatg ttcgagaaaa accgaagac
                                                                      349
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<213> Conus caracteristicus
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Leu Lys Arg Gly Phe Tyr Gly Thr Leu Ala Met Ser Thr Arg Gly Cys
Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly Thr Cys
Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe
Tyr Arg Gly Cys Thr Cys Ser Cys Gln Gly
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       3, 25 and 35 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulp
       ho-Tyr or O-phospho-Tyr
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Thr Cys Asp Cys Ser Gly Xaa Ser Xaa Cys Arg Cys Gly Asp Ala His
His Phe Xaa Arg Gly Cys Thr Cys Ser Cys Gln
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ctg cca tcc agc cag cag gaa gga gat gtc cag gca aga aaa acg cac
                                                                      96
Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
cgg aag agc ggc ttc tac ggt act ctg gca atg tct gcc aga gga tgc
                                                                     144
Arg Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg Gly Cys
                            40
tct ggc act tgc cat cgt cgt gag gac ggc aag tgt cgg ggt act tgc
                                                                     192
Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly Thr Cys
gac tgc tcc gga tac agc tat tgt cgc tgc ggt gac gct cac cat ttt
                                                                     240
Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe
                    70
tac cga gga tgc acg tgt aca tgt taaggttgat taattgactc ttttaactcg
                                                                     294
Tyr Arg Gly Cys Thr Cys Thr Cys
ttgaaccgat taaaaaaaaa attagacgaa tatgttcgag aaaaccgaag ac
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<400> 71
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Arg Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg Gly Cys
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Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe
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Tyr Arg Gly Cys Thr Cys Thr Cys
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       , 25 and 35 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulph
       o-Tyr or O-phospho-Tyr
<400> 72
Gly Cys Ser Gly Thr Cys His Arg Arg Xaa Asp Gly Lys Cys Arg Gly
Thr Cys Asp Cys Ser Gly Xaa Ser Xaa Cys Arg Cys Gly Asp Ala His
                                                    30
His Phe Xaa Arg Gly Cys Thr Cys Thr Cys
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                                                                      48
Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Ile
                                    10
ctg cca tcc agc cag cag gaa gga gat gtc cag gca aga aaa acg cac
                                                                      96
Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
                                25
cgg aag agc ggc ttc tac ggt act ctg gca atg tct acc aga gga tgc
                                                                     144
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Arg Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Thr Arg Gly Cys

35 40 45 tct ggc act tgc cgt cgt cat cgg gac ggc aag tgt cgg ggt act tgc 192 Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly Thr Cys 50 55 gac tgc tcc gga tac agc tat tgt cgc tgc ggt gac gct cac cat ttt 240 Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe tac cga gga tgc acg tgt aca tgt taaggttgat taattcgatc ttttaactcg 294 Tyr Arg Gly Cys Thr Cys Thr Cys 85 ttgaacgatt aaaaaaaaa ttttagacga atatgttcga gaaaaaccga agac 348 74 <210> <211> 88 <212> PRT <213> Conus caracteristicus <400> 74 Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Ile Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His 25 Arg Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Thr Arg Gly Cys Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe 70 Tyr Arg Gly Cys Thr Cys Thr Cys <210> 75 <211> 42 <212> PRT <213> Conus caracteristicus <220> <221> PEPTIDE <222> (1)..(42)<223> Xaa at residues 23, 25 and 35 is Tyr, 125I-Tyr, mono-iodo-Tyr, di -iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 75 Gly Cys Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly Thr Cys Asp Cys Ser Gly Xaa Ser Xaa Cys Arg Cys Gly Asp Ala His His Phe Xaa Arg Gly Cys Thr Cys Thr Cys

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                                    10
ctg cca tcc agc cag cag gaa gga gat gtc cag gca aga aaa acg cac
                                                                       96
Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
                                25
ctg aag aga ggc ttc tac ggt act ctg gca atg tct acc aga gga tgc
                                                                      144
Leu Lys Arg Gly Phe Tyr Gly Thr Leu Ala Met Ser Thr Arg Gly Cys
tot ggc act tgc cgt cgt cat cgg gac ggc aag tgt cgg ggt act tgc
                                                                      192
Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly Thr Cys
    50
                        55
                                                                      240
gac tgc tcc gga tac agc tat tgt cgc tgc ggt gac gct cac cat ttt
Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe
                                        75
65
                    70
tac cga gga tgc acg tgt aca tgt taaggttgat taattgactc ttttaactcg
                                                                      294
Tyr Arg Gly Cys Thr Cys Thr Cys
                85
ttgaacgatt aaaaaaaaaa attttagagc aatatgttcg agaaaaaccg aagac
                                                                      349
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Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
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Leu Lys Arg Gly Phe Tyr Gly Thr Leu Ala Met Ser Thr Arg Gly Cys
Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly Thr Cys
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Tyr Arg Gly Cys Thr Cys Thr Cys
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Thr Cys Asp Cys Ser Gly Xaa Ser Xaa Cys Arg Cys Gly Asp Ala His
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His Phe Xaa Arg Gly Cys Thr Cys Thr Cys
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ctg cca tcc agc cag gaa gga gat gtc cag gca aga aaa acg cac
                                                                      96
Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His
ctg aag aga ggc ttc tac ggt act ctg gca atg tct tcc aga gga tgc
                                                                     144
Leu Lys Arg Gly Phe Tyr Gly Thr Leu Ala Met Ser Ser Arg Gly Cys
                            40
tot ggc act tgc cat cgt cgt gag gac ggc aag tgt cgg ggt act tgc
                                                                     192
Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly Thr Cys
gac tgc tcc gga tac agc tat tgt cgc tgc ggt gac gct cac cat ttt
                                                                     240
Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe
tac cga gga tgt acg tgt aca tgt taaggttgat taattgactc ttttaactcg
                                                                     294
Tyr Arg Gly Cys Thr Cys Thr Cys
                85
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<210> 80
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Leu Lys Arg Gly Phe Tyr Gly Thr Leu Ala Met Ser Ser Arg Gly Cys
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Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe
Tyr Arg Gly Cys Thr Cys Thr Cys
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<210> 81
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       , 25 and 35 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulph
       o-Tyr or O-phospho-Tyr
<400> 81
Gly Cys Ser Gly Thr Cys His Arg Arg Xaa Asp Gly Lys Cys Arg Gly
Thr Cys Asp Cys Ser Gly Xaa Ser Xaa Cys Arg Cys Gly Asp Ala His
            20
His Phe Xaa Arg Gly Cys Thr Cys Thr Cys
                            40
<210>
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                                                                      48
Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Ile
                                                                      96
ctg cca tcc agc cag cag gaa gga gat gtc cag gca aga aaa acg cac
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Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His

30 20 25 ctg aag agc ggc ttc tac ggt act ctg gca atg tct gcc aga gga tgc 144 Leu Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg Gly Cys 40 tot ggc act tgc cat cgt cgt caa aac ggc gag tgt cag ggt act tgc 192 Ser Gly Thr Cys His Arg Arg Gln Asn Gly Glu Cys Gln Gly Thr Cys 50 gac tgc gac gga cac gac cat tgt gac tgc ggt gac act ctc ggt act 240 Asp Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu Gly Thr tac tca gga tgc gtg tgt ata tgt taaggttgat taattgactc ttttaactcg 294 Tyr Ser Gly Cys Val Cys Ile Cys 85 ttqaacqatt aaaaaaattt agagcaatat gttcgagaaa aaccgaagac 344 <210> 83 <211> 88 <212> PRT <213> Conus caracteristicus <400> 83 Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Ile 10 5 Leu Pro Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His 25 Leu Lys Ser Gly Phe Tyr Gly Thr Leu Ala Met Ser Ala Arg Gly Cys Ser Gly Thr Cys His Arg Arg Gln Asn Gly Glu Cys Gln Gly Thr Cys Asp Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu Gly Thr 70 75 Tyr Ser Gly Cys Val Cys Ile Cys <210> 84 <211> 42 <212> PRT <213> Conus caracteristicus <220> <221> PEPTIDE <222> (1)..(42)Xaa at residue 13 is Glu or gamma-carboxy-Glu; Xaa at residue 35 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-p hospho-Tyr Gly Cys Ser Gly Thr Cys His Arg Arg Gln Asn Gly Xaa Cys Gln Gly

10

15

Thr Cys Asp Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu 25 Gly Thr Xaa Ser Gly Cys Val Cys Ile Cys 40 <210> 85 <211> 422 <212> DNA <213> Conus caracteristicus <220> <221> CDS <222> (7)..(258) <400> 85 gttaca atg cat ctg tca ctg gca cgc tca gct gtc ttg atg ttg ctt 48 Met His Leu Ser Leu Ala Arg Ser Ala Val Leu Met Leu Leu ctg ctg ttt gcc ttg gac aac ttc gtt ggg gtc cag cca gga cag ata 96 Leu Leu Phe Ala Leu Asp Asn Phe Val Gly Val Gln Pro Gly Gln Ile aca aga gat gtg gac aac cgc cgt aac cgg caa tcg cga tgg aag cca 144 Thr Arg Asp Val Asp Asn Arg Asn Arg Gln Ser Arg Trp Lys Pro agg agt ctc ttc aag tca ctt cat aaa cga gca tcg tgt gga ggg act 192 Arg Ser Leu Phe Lys Ser Leu His Lys Arg Ala Ser Cys Gly Gly Thr tgc acg gaa agt gcc gat tgc cct tcc acg tgt agt act tgc tta cat 240 Cys Thr Glu Ser Ala Asp Cys Pro Ser Thr Cys Ser Thr Cys Leu His gct caa tgc gag tca aca tgatgtcgca ctacagctct tctctacagt 288 Ala Gln Cys Glu Ser Thr gtgtacatcg accgtacgac gcatctttta tttctttggc tgtttcattc gttttcttgt 348 gttcataaca tgcggagccc ttccgttacc tctactgctc tacacttaac ctgataacca 408 gaaaatccag tact 422 <210> 86 <211> 84 <212> PRT <213> Conus caracteristicus <400> 86 Met His Leu Ser Leu Ala Arg Ser Ala Val Leu Met Leu Leu Leu Leu Phe Ala Leu Asp Asn Phe Val Gly Val Gln Pro Gly Gln Ile Thr Arg Asp Val Asp Asn Arg Arg Asn Arg Gln Ser Arg Trp Lys Pro Arg Ser

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Ala Gln Cys Glu

Thr

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accagaaaat ccagtact
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Asp Val Asp Asn Arg Arg Asn Leu Gln Ser Arg Trp Lys Pro Arg Ser
Leu Phe Lys Ser Leu His Lys Arg Ala Ser Cys Gly Gly Thr Cys Thr
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Cys Glu
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Ser Thr Cys Leu His Ala Gln Cys Xaa
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tat aa Tyr As																150
cca aa Pro Ly		yś							-	_			tgat	gcto	cca	199
ggacco	ctct	g a	acca	cgac	cg t											220
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Val Le	eu S		Thr 20	Thr	Asn	Cys	Cys	Gly 25	Tyr	Asn	Thr	Met	Glu 30	Phe	Cys	
Pro A	la C 3	-	Met	Cys	Thr	Tyr	Ser 40	Cys	Pro	Lys	Lys	Lys 45	Lys	Pro	Gly	
Lys G	-	rg .	Arg	Asn	Asn											
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Cys Tyr Asn Phe Cys Asp Cys Ile Gly Thr Arg Cys Glu Ala Gln Lys
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       r or O-phospho-Tyr
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Asp Cys Ile Gly Thr Arg Cys Xaa Ala Gln Lys
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      (1)..(27)
      Xaa at residues 13 and 16 is Glu or gamma-carboxy-Glu; Xaa at res
<223>
       idue 4 is Pro or hydroxy-Pro; Xaa at residue 25 is Tyr, 125I-Tyr,
       mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
Ala Cys Lys Xaa Lys Asn Asn Leu Cys Ala Ile Thr Xaa Met Ala Xaa
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		gcg Ala														149
		cgg Arg 45														197
		aag Lys														245
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gagt	gta	aac (gagad	cctat	ct a	gaaaq	gtcga	a ago	gttg	cgcg	taat	ttga	ata a	agcat	tgttt	360
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Met	Ala	Thr	Ser 20	Gln	Gln	Asp	Gly	Gly 25	Glu	Lys	Gln	Ala	Met 30	Gln	Arg	
Asp	Ala	Ile 35	Asn	Val	Ala	Pro	Gly 40	Thr	Ser	Ile	Thr	Arg 45	Arg	Asn	Val	
Asp	Gln 50	Glu	Cys	Ile	Asp	Ala 55	Cys	Gln	Leu	Glu	Asp 60	Lys	Asn	Cys	Cys	
Gly 65	Arg	Thr	Asp	Gly	Glu 70	Pro	Arg	Cys	Ala	Lys 75	Ile	Cys	Leu	Gly		
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<222>
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      Xaa at residues 5, 13 and 24 is Glu or gamma-carboxy-Glu; Xaa at
<223>
       residue 25 is Pro or hydroxy-Pro
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Asn Val Asp Gln Xaa Cys Ile Asp Ala Cys Gln Leu Xaa Asp Lys Asn
                                    10
Cys Cys Gly Arg Thr Asp Gly Xaa Xaa Arg Cys Ala Lys Ile Cys Leu
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ctt cta ctt ctt gtg ccc atg gca acc agt caa cag gat gga gga gag
                                                                      101
Leu Leu Leu Val Pro Met Ala Thr Ser Gln Gln Asp Gly Gly Glu
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                                    20
                                                                      149
aag cag gcg atg caa agg gac gca atc aac gtc gca cca gga aca tca
Lys Gln Ala Met Gln Arg Asp Ala Ile Asn Val Ala Pro Gly Thr Ser
            30
                                 35
                                                                      197
atc act cqq aca qaa aca qat cag gag tgc att gac atc tgt aag cag
Ile Thr Arg Thr Glu Thr Asp Gln Glu Cys Ile Asp Ile Cys Lys Gln
        45
                            50
                                                 55
gag gac aag aaa tgc tgc ggc aga tca aat gga gaa ccc aca tgt gcg
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Glu Asp Lys Lys Cys Cys Gly Arg Ser Asn Gly Glu Pro Thr Cys Ala
                        65
aaa atc tgc ctc gga taatttctgt acgctgtctc gttcattatt tcgtcagtac
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Lys Ile Cys Leu Gly
qaqtttaaac qaqacctatt agaaagtcga aggttcgtgc ttaatttgat aagcattgtt
                                                                      360
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tgctgggatg aacgga
       101
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Met Ser Gly Leu Gly Ile Met Val Leu Thr Leu Leu Leu Val Pro
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Met Ala Thr Ser Gln Gln Asp Gly Glu Lys Gln Ala Met Gln Arg

	20		25	30	
Asp Ala Ile 35	Asn Val	Ala Pro Gly	y Thr Ser I	le Thr Arg Thr 45	Glu Thr
Asp Gln Glu 50	Cys Ile	Asp Ile Cys	s Lys Gln G	lu Asp Lys Lys 60	Cys Cys
Gly Arg Ser 65	Asn Gly	Glu Pro Th: 70	r Cys Ala Ly 75	ys Ile Cys Leu 5	Gly
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	.(32) at residu	ues 1, 5, 13 5 is Pro or			carboxy-Glu; Xaa
<400> 102 Xaa Thr Asp 1	Gln Xaa 5	Cys Ile Asp	o Ile Cys Ly 10	/s Gln Xaa Asp	Lys Lys 15
Cys Cys Gly	Arg Ser 20	Asn Gly Xaa	a Xaa Thr Cy 25	ys Ala Lys Ile 30	Cys Leu
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			_	aa cag gat gga In Gln Asp Gly	
	-		_	c gca cca gga al Ala Pro Gly 40	
				t gac acc tgt Le Asp Thr Cys 55	
				ga gaa ccc gta y Glu Pro Val 70	
aaa atc tgc	ttc gga	taatttctgt	acgctgtctc	attcataatt tc	atcagtac 300

Lys Ile Cys Phe Gly

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                                                                     360
                                                                     376
tgctgggatg aacgga
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Asp Ala Ile Asn Val Ala Pro Gly Thr Ser Ile Thr Arg Arg Glu Thr
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Asp Gln Glu Cys Ile Asp Thr Cys Glu Gln Glu Asp Lys Lys Cys
Gly Arg Thr Asn Gly Glu Pro Val Cys Ala Lys Ile Cys Phe Gly
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      (1)..(32)
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      Xaa at residues 1, 5, 11, 13 and 24 is Glu or gamma-carboxy-Glu;
<223>
       Xaa at residue 25 is Pro or hydroxy-Pro
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                                                        15
                5
                                    10
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tct cgc ctg ctc tct cac gtt gtc agg gga tgc tgt ggt aag tat ccc Ser Arg Leu Leu Ser His Val Val Arg Gly Cys Cys Gly Lys Tyr Pro 35 40 45	144
aat gct gcc tgt cat cct tgc ggt tgt aca gtg ggt agg cca ccg tat Asn Ala Ala Cys His Pro Cys Gly Cys Thr Val Gly Arg Pro Pro Tyr 50 55 60	192
tgt gac aga ccc agt ggt gga gga cgc tgatgctcca ggaccctctg Cys Asp Arg Pro Ser Gly Gly Gly Arg 65 70	239
aaccacgacg t	250
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Phe Thr Ser Asp Arg Ala Ser Asp Asp Arg Asn Thr Asn Asp Lys Ala 20 25 30	
Ser Arg Leu Leu Ser His Val Val Arg Gly Cys Cys Gly Lys Tyr Pro 35 40 45	
Asn Ala Ala Cys His Pro Cys Gly Cys Thr Val Gly Arg Pro Pro Tyr 50 55 60	
Cys Asp Arg Pro Ser Gly Gly Gly Arg 65 70	
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Thr Val Gly Arg Xaa Xaa Xaa Cys Asp Arg Xaa Ser Gly Gly 20 25 30	
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ctg ttt ccc ctt act gct ctt cca ctg gat gga gaa caa cct gta gac
                                                                       96
Leu Phe Pro Leu Thr Ala Leu Pro Leu Asp Gly Glu Gln Pro Val Asp
cga cat gcc gag cat atg cag gat gac aat tca gct gca cag aac ccc
                                                                      144
Arg His Ala Glu His Met Gln Asp Asp Asn Ser Ala Ala Gln Asn Pro
tgg gtt att gcc atc aga cag tgt tgc acg ttc tgc aac ttt gga tgc
                                                                      192
Trp Val Ile Ala Ile Arg Gln Cys Cys Thr Phe Cys Asn Phe Gly Cys
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cag cct tgt tgc gtc ccc tgataacgtg ttgatgacca actttctcga g
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Gln Pro Cys Cys Val Pro
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Arg His Ala Glu His Met Gln Asp Asp Asn Ser Ala Ala Gln Asn Pro
        35
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       112
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       404
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ctg ttt ctg acg gcc tgc cag ctc att gca gct gat gac tcc aga gat
Leu Phe Leu Thr Ala Cys Gln Leu Ile Ala Ala Asp Asp Ser Arg Asp
            15
aac cag aag cac cgt gca gtg agg atg aga gac gca ttg aag aat ttc
                                                                    146
Asn Gln Lys His Arg Ala Val Arg Met Arg Asp Ala Leu Lys Asn Phe
        30
                                                                    194
aaa gat too agg gog tgo too ggt aga ggt tot aga tgt cot coc caa
Lys Asp Ser Arg Ala Cys Ser Gly Arg Gly Ser Arg Cys Pro Pro Gln
    45
tgc tgc atg ggt ttg acg tgc ggt cgt gag tat cca ccc aga tgc ggt
                                                                    242
Cys Cys Met Gly Leu Thr Cys Gly Arg Glu Tyr Pro Pro Arg Cys Gly
60
                                       70
                                                           75
tgatatacgg tgaacaactg atatttcccc tctgtgctct accctctttt gcctgattca
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cccacaccta tgtgtggtca tgaaccactc agtacctaca cctctggtgg cttcagagga
                                                                    362
                                                                    404
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<213> Conus geographus
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Cys Gln Leu Ile Ala Ala Asp Asp Ser Arg Asp Asn Gln Lys His Arg
                               25
                                                   30
Ala Val Arg Met Arg Asp Ala Leu Lys Asn Phe Lys Asp Ser Arg Ala
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Thr Cys Gly Arg Glu Tyr Pro Pro Arg Cys Gly
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      (1)..(27)
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       , 11, 24 and 25 is Pro or hydroxy-Pro; Xaa at residue 23 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-T
       уr
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Leu Thr Cys Gly Arg Xaa Xaa Xaa Arg Cys
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      Xaa at residue 7 is Pro or hydroxy-Pro
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<210> 116
<211> 360
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Cys Cys Pro Ser Ser Lys Glu Asp Ser Leu Asn Cys Ile Glu Thr Met
gcg acc acg gcc acg tgc atg aag tcc aac aag ggg gag atc tac tcc
                                                                      96
Ala Thr Thr Ala Thr Cys Met Lys Ser Asn Lys Gly Glu Ile Tyr Ser
            20
                                25
tat gcg tgc ggc tac tgc ggc aag aag gag agc tgt ttc ggc gac
                                                                     144
Tyr Ala Cys Gly Tyr Cys Gly Lys Lys Glu Ser Cys Phe Gly Asp
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35 40 45 aaa aag cca gtg act gac tac cag tgc cag acg cgg aac att ccc aac 192 Lys Lys Pro Val Thr Asp Tyr Gln Cys Gln Thr Arg Asn Ile Pro Asn 50 ccc tgc ggc ggc gct gct ctc tgaaggcacc aacagcacca acagcacgat 243 Pro Cys Gly Gly Ala Ala Leu ctcctgtgtt tcgtcactgc atttatgacg tcaaaaccac gtcatgcatg atgacgacga 303 tctcqqctat qqcatgtatt qaaqaatgga aataaaccta gttttcagct gaaaaaa 360 <210> 117 <211> 71 <212> PRT <213> Conus geographus <400> 117 Cys Cys Pro Ser Ser Lys Glu Asp Ser Leu Asn Cys Ile Glu Thr Met Ala Thr Thr Ala Thr Cys Met Lys Ser Asn Lys Gly Glu Ile Tyr Ser 25 Tyr Ala Cys Gly Tyr Cys Gly Lys Lys Glu Ser Cys Phe Gly Asp Lys Lys Pro Val Thr Asp Tyr Gln Cys Gln Thr Arg Asn Ile Pro Asn Pro Cys Gly Gly Ala Ala Leu 70 <210> 118 <211> 71 <212> PRT <213> Conus geographus <220> PEPTIDE <221> <222> (1)..(71) <223> Xaa at residues 7, 14, 29 and 43 is Glu or gamma-carboxy-Glu; Xaa at residues 3, 51, 63 and 65 is Pro or hydroxy-Pro; Xaa at resid ues 31, 33, 37 and 55 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Ty r, O-sulpho-Tyr or O-phospho-Tyr <400> 118 Cys Cys Xaa Ser Ser Lys Xaa Asp Ser Leu Asn Cys Ile Xaa Thr Met Ala Thr Thr Ala Thr Cys Met Lys Ser Asn Lys Gly Xaa Ile Xaa Ser 20 Xaa Ala Cys Gly Xaa Cys Gly Lys Lys Xaa Ser Cys Phe Gly Asp Lys Lys Xaa Val Thr Asp Xaa Gln Cys Gln Thr Arg Asn Ile Xaa Asn

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Xaa Cys Gly Gly Ala Ala Leu <210> 119 <211> 769 <212> DNA <213> Conus geographus <220> <221> misc feature <222> (1)..(769) <223> n is unknown <400> 119 cgggcqctgc attccggacg tgaaacagca tcgccagcaa gtgggcatag tgcaagacac 60 tcaqaacaat gacqcacata qtctganaaa ataaccatgg gtatgcggat gangtttagt 120 gtgtttcngc aggttgtcnt gggnaccact gtcgtttcct tcacntcacg tcgtggtcca 180 aaatctcqtc qcqqqqaacc tattccqacc actqtaatca actacqqqqa qtqctqtaaq 240 gatccatcct gttgggttaa ggtgaaggat ttccagtgtc ctggagcaag tcctcccaac 300 360 tgaaccacga catgtegece tetgeetgac etgetteacg tteegtetet ttetgeeact agaactcaac aactcgatcc aacagactcc tactttacct ccgtattctg aaactacttg 420 gatttgattg tctttaatat ctactcacac ttgctgttat tacatcatcc aaaatttaac 480 540 aagaacatga aaggtgtctg ttcaaacaaa atcaggcaat gacaangggg gaaagtctcc antctatctg aaaactgtca cctgtcactc tcttaaccag gtttanaact gantaccact 600 anagetgttg tnccacatca ngatcagnec aatttgtann gtttcctttg caaaactttt 660 gcctgaaatt cttgaaaaga aacgctcaca atgttgggaa gtgcttttna ttanctgaca 720 anntgncanc atgttccntt tcantaantc tnaaatgnaa acctctgtt 769 <210> 120 <211> 68 <212> PRT <213> Conus geographus <400> 120 Met Gly Met Arg Met Met Phe Ser Val Phe Leu Gln Val Val Leu Gly Thr Thr Val Val Ser Phe Thr Ser Arg Arg Gly Pro Lys Ser Arg Arg 20 25 Gly Glu Pro Ile Pro Thr Thr Val Ile Asn Tyr Gly Glu Cys Cys Lys Asp Pro Ser Cys Trp Val Lys Val Lys Asp Phe Gln Cys Pro Gly Ala

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<211>
      36
<212> PRT
<213> Conus geographus
<220>
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       e 21 is Trp (D or L) or bromo-Trp (D or L);
<220>
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       -sulpho-Tyr or O-phospho-Tyr
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Asp Xaa Ser Cys Xaa Val Lys Val Lys Asp Phe Gln Cys Xaa Gly Ala
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Ser Xaa Xaa Asn
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                                                                      118
                                                          Met Lys
att tac ctg tgt ctt gct ttt gtt ctg ctc ctg gct tct acc ata gtt
                                                                      166
Ile Tyr Leu Cys Leu Ala Phe Val Leu Leu Leu Ala Ser Thr Ile Val
gat toa ggg ctt ctt gat aaa att gag act ata aga aac tgg aaa cgc
                                                                      214
Asp Ser Gly Leu Leu Asp Lys Ile Glu Thr Ile Arg Asn Trp Lys Arg
gat gac age tat tgt gat gga tgc cta tgc acc ata tta aaa aaa gag
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Asp Asp Ser Tyr Cys Asp Gly Cys Leu Cys Thr Ile Leu Lys Lys Glu
                                     . 45
35
                    40
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                                    60
cca tgt tgg gaa gaa gac tgc tac tgt act gaa atc caa ggt gga gct
                                                                     358
Pro Cys Trp Glu Glu Asp Cys Tyr Cys Thr Glu Ile Gln Gly Gly Ala
tgc gtc aca ccc tca gaa tgc aaa cct gga gag tgttgaggat tggagtggcc
                                                                     411
Cys Val Thr Pro Ser Glu Cys Lys Pro Gly Glu
agttccagca catacagcac catggtgccc tggacaatcg tctattgaat tgaatatgcc
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tgtggcagga atctgtccta caaaataaaa aaatcataag ttaaaaaa
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Ile Val Asp Ser Gly Leu Leu Asp Lys Ile Glu Thr Ile Arg Asn Trp
Lys Arg Asp Asp Ser Tyr Cys Asp Gly Cys Leu Cys Thr Ile Leu Lys
Lys Glu Thr Cys Thr Ser Thr Met Ser Cys Arg Gly Thr Cys Arg Lys
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Gly Ala Cys Val Thr Pro Ser Glu Cys Lys Pro Gly Glu
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<211> 60
<212> PRT
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<222>
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<223> Xaa at residues 16, 36, 37, 43, 56 and 59 is Glu or gamma-carboxy
       -Glu; Xaa at residues 33, 52 and 57 is Pro or hydroxy-Pro; Xaa at
       residues 32 and 35 is Trp (D or L) or bromo-Trp (D or L);
<220>
<221> PEPTIDE
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<223> Xaa at residues 4 and 40 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo
       -Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Xaa	Cys	Xaa 35	Xaa	Xaa	Asp	Cys	Xaa 40	Cys	Thr	Xaa	Ile	Gln 45	Gly	Gly	Ala	
Cys	Val 50	Thr	Xaa	Ser	Xaa	Cys 55	Lys	Xaa	Gly	Xaa	Cys 60					
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		tct Ser 15														100
		aat Asn		_	_	-	_		_		_		-		-	148
		tta Leu														196
		tta Leu														244
-		aag Lys			_		_	_		-		-	_	-	•	292
		aag Lys 95					taga	ıggco	ag t	tcca	ıgcac	a ta	cago	cacca	à	343
tgat	gccc	etg g	ıacaa	tcgt	g tt	gttg	ıgatt	gaa	ıtatç	lccc	gtgg	cagg	aa t	ctgt	cctac	403
aaaa	ıaa															409
<210 <211 <212 <213	> 9 !> E	.26 99 PRT Conus	, dec	arar	hus											
<400)> 1	.26				Lon	חות	Pho	Lou	Lou	Pho	Tou	Dro	Sor	Th ∽	

1 5 10 15 Ile Val Asp Ser Gly Leu Leu Asp Lys Ile Glu Thr Ile Arg Asn Trp Arg Arg Asp Glu Ser Lys Cys Asp Arg Cys Asn Cys Ala Glu Leu Arg Ser Ser Arg Cys Thr Gln Ala Ile Phe Cys Leu Thr Pro Glu Leu Cys Thr Pro Ser Ile Ser Cys Pro Thr Gly Glu Cys Arg Cys Thr Lys Phe His Gln Ser Arg Cys Thr Arg Phe Val Glu Cys Val Pro Asn Lys Cys 90 Arg Asp Ala <210> 127 <211> 65 <212> PRT <213> Conus geographus <220> <221> PEPTIDE <222> (1)..(65)<223> Xaa at residues 2, 12, 28, 40 and 56 is Glu or gamma-carboxy-Glu; Xaa at residues 27, 32, 37 and 59 is Pro or hydroxy-Pro <400> 127 Asp Xaa Ser Lys Cys Asp Arg Cys Asn Cys Ala Xaa Leu Arg Ser Ser Arg Cys Thr Gln Ala Ile Phe Cys Leu Thr Xaa Xaa Leu Cys Thr Xaa 20 Ser Ile Ser Cys Xaa Thr Gly Xaa Cys Arg Cys Thr Lys Phe His Gln 40 Ser Arg Cys Thr Arg Phe Val Xaa Cys Val Xaa Asn Lys Cys Arg Asp Ala 65 <210> 128 <211> 29 <212> PRT <213> Conus geographus <220> <221> PEPTIDE <222> (1)..(29)Xaa at residues 9 and 23 is Glu or gamma-carboxy-Glu; Xaa at resi due 28 is Pro or hydroxy-Pro; Xaa at residue 15 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 128 Lys Phe Leu Ser Gly Gly Phe Lys Xaa Ile Val Cys His Arg Xaa Cys

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<211> 7
<212> PRT
<213> Conus imperialis
<220>
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      PEPTIDE
<222>
       (1)..(7)
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       r L) or bromo-Trp (D or L)
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Xaa Cys Gly Gln Ala Xaa Cys
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      DNA
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       Met His Leu Ser Leu Ala Ser Ser Ala Ala Leu Met Leu Leu
                                                                       96
ctg ctt ttt gcc ttg ggc aac ttc gtt ggg gtc cag cca gga caa ata
Leu Leu Phe Ala Leu Gly Asn Phe Val Gly Val Gln Pro Gly Gln Ile
                                         25
15
                    20
aga gat ctg aac aaa gga cag ctc aag gac aac cgc cgt aac ctg caa
                                                                      144
Arq Asp Leu Asn Lys Gly Gln Leu Lys Asp Asn Arg Arg Asn Leu Gln
                35
tcg cag agg aaa caa atg agt ctc ctc aag tca ctt cat gat cga aat
                                                                      192
Ser Gln Arg Lys Gln Met Ser Leu Leu Lys Ser Leu His Asp Arg Asn
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                                                     60
ggg tgt aac ggc aac acg tgt tcc aat agc ccc tgc cct aac aac tgt
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Gly Cys Asn Gly Asn Thr Cys Ser Asn Ser Pro Cys Pro Asn Asn Cys
        65
tat tgc gat act gag gac gac tgc cac cct gac agg cgt gaa cat
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Tyr Cys Asp Thr Glu Asp Asp Cys His Pro Asp Arg Arg Glu His
    80
                        85
                                             90
tagagattag agagtttcct tgtcaacatg atgtcgcacc acacctctgc tctgcagtgt
                                                                      345
qtacatcgac cagtcgacgc atctgttatt tctttgtctg ttggattgta catcgaccag
                                                                      405
tccacgcatc tgttatttct ttgtctgttt gatttgtttt cgtgtgttca taacacacag
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agcettteta ttatetgtat tgeaatacae tttgeetgat aaccagaaag teeagtget
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Phe Ala Leu Gly Asn Phe Val Gly Val Gln Pro Gly Gln Ile Arg Asp
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Leu Asn Lys Gly Gln Leu Lys Asp Asn Arg Arg Asn Leu Gln Ser Gln
                            40
Arg Lys Gln Met Ser Leu Leu Lys Ser Leu His Asp Arg Asn Gly Cys
Asn Gly Asn Thr Cys Ser Asn Ser Pro Cys Pro Asn Asn Cys Tyr Cys
Asp Thr Glu Asp Asp Cys His Pro Asp Arg Arg Glu His
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<221>
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       idues 13, 14 and 27 is Pro or hydroxy-Pro; Xaa at residue 18 is T
       yr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phosp
       ho-Tyr
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Cys Xaa Cys Asp Thr Xaa Asp Asp Cys His Xaa Asp Arg Arg Xaa His
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                5
                                    10
                                                        15
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ctg gca tcc agc cag cag gaa gga gat gtc cag gca agg aaa aca cac

Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His ccg aag aga gag ttc cat cgt att ctg cta agg cct gac aga cag tcc 144 Pro Lys Arg Glu Phe His Arg Ile Leu Leu Arg Pro Asp Arg Gln Ser 40 gaa acg gct tgt agg tcg ctc gga agc tac caa tgt atg ggt aaa tgc 192 Glu Thr Ala Cys Arg Ser Leu Gly Ser Tyr Gln Cys Met Gly Lys Cys 55 caa ctc ggg gtt cat tcc tgg tgt gaa tgc att tat aac cga ggt agt 240 Gln Leu Gly Val His Ser Trp Cys Glu Cys Ile Tyr Asn Arg Gly Ser 70 cag aag tot gga tgc gcg tgt agg tgt caa aag tgattaattg actcatttaa 293 Gln Lys Ser Gly Cys Ala Cys Arg Cys Gln Lys 85 ctcqttqaac qatttaaaaa atccaqaqca atatqttcga qaaaaaccga aqacgac 350 <210> 134 <211> 91 <212> PRT <213> Conus lacterculatus <400> 134 Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Thr Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr His Pro Lys Arg Glu Phe His Arg Ile Leu Leu Arg Pro Asp Arg Gln Ser Glu Thr Ala Cys Arg Ser Leu Gly Ser Tyr Gln Cys Met Gly Lys Cys 55 Gln Leu Gly Val His Ser Trp Cys Glu Cys Ile Tyr Asn Arg Gly Ser Gln Lys Ser Gly Cys Ala Cys Arg Cys Gln Lys 85 <210> 135 <211> 45 <212> PRT <213> Conus lacterculatus <220> <221> PEPTIDE <222> (1)..(45)<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 3 and 27 is Glu or gamma-carboxy-Glu; Xaa at residue 25 is Trp (D or L) or br omo-Trp (D or L); Xaa at residues 12 and 30 is Tyr, 125I-Tyr, mon o-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

Xaa Ser Xaa Thr Ala Cys Arg Ser Leu Gly Ser Xaa Gln Cys Met Gly

1			5					10					15		
Lys Cys	Gln	Leu 20	Gly	Val	His	Ser	Xaa 25	Cys	Xaa	Cys	Ile	Xaa 30	Asn	Arg	
Gly Ser	Gln 35	Lys	Ser	Gly	Cys	Ala 40	Cys	Arg	Cys	Gln	Lys 45				
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acg gcc Thr Ala 15															96
tat cgt Tyr Arg	_	-													144
agg tcg Arg Ser															192
cct ggt Pro Gly															237
taatagt	aat a	aatct	ggcg	gt ct	gata	attto	c caq	gtct	gtgc	tcta	accct	cct t	ttg	cctgag	297
tcatcca	tac	ctgt	gatag	ga g											318
<210> <211> <212> <213>	137 77 PRT Conus	s liv	/idus	5											
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Ser Gln	Leu	Ile 20	Thr	Ala	Asp	Tyr	Ser 25	Arg	Asp	Lys	Gln	Glu 30	Tyr	Arg	
Ala Glu	Arg 35	Leu	Arg	Asp	Ala	Met 40	Gly	Lys	Phe	Lys	Gly 45	Ser	Arg	Ser	
Cys Gly 50	His	Ser	Gly	Ala	Gly 55	Cys	Tyr	Thr	Arg	Pro 60	Cys	Cys	Pro	Gly	

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       O is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O
       -phospho-Ty
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Gly Leu His Cys Ser Gly Gly Gln Ala Gly Gly Leu Cys Val
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                                                                      96
acg gcc agt gag ttc ctt aca gct gat tac tcc aga gat aag cgg cag
Thr Ala Ser Glu Phe Leu Thr Ala Asp Tyr Ser Arg Asp Lys Arg Gln
                    20
                                        25
tac cgt gct gtg agg ttg aga gac gca atg cgg aat ttc aaa ggt acc
                                                                     144
Tyr Arg Ala Val Arg Leu Arg Asp Ala Met Arg Asn Phe Lys Gly Thr
agg gac tgc ggg gaa tca ggt caa ggt tgc tat agt gta cgt cct tgc
                                                                     192
Arg Asp Cys Gly Glu Ser Gly Gln Gly Cys Tyr Ser Val Arg Pro Cys
tgc cct ggt ctg att tgc aaa ggc acc ggt ggt gga ggc ctg tgc cgg
                                                                     240
Cys Pro Gly Leu Ile Cys Lys Gly Thr Gly Gly Gly Leu Cys Arg
ccc tct ggc atc tgatatctcc cctctgtgct ccaccctctt ttgcctgagt
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Pro Ser Gly Ile
    80
catccatacc tgtgctcgag
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<211> 82

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Ala Val Arg Leu Arg Asp Ala Met Arg Asn Phe Lys Gly Thr Arg Asp
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Cys Gly Glu Ser Gly Gln Gly Cys Tyr Ser Val Arg Pro Cys Cys Pro
Gly Leu Ile Cys Lys Gly Thr Gly Gly Gly Leu Cys Arg Pro Ser
                    70
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Gly Ile
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      35
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<222>
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<223>
       17 and 32 is Pro or hydroxy-Pro; Xaa at residue 10 is Tyr, 125I-
       Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Xaa Gly Leu Ile Cys Lys Gly Thr Gly Gly Gly Leu Cys Arg Xaa
Ser Gly Ile
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<222>
      (1)..(6)
<223>
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       -Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Val Xaa Xaa Thr His Xaa
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       -Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Arg Xaa Lys Asn Ser Xaa
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Ala Arg Xaa Lys Asn Ser Xaa
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acg gcc tgt caa ctc att act gct gcg aat tac gcc aga gat gaa cag Thr Ala Cys Gln Leu Ile Thr Ala Ala Asn Tyr Ala Arg Asp Glu Gln 15 20 25 30	6
gag tac ccc gct gtg agg tcg agc gac gtg atg cag gat tcc gaa gac 14 Glu Tyr Pro Ala Val Arg Ser Ser Asp Val Met Gln Asp Ser Glu Asp 35 40 45	4
ttg acg ttg acc aag aaa tgc acg gac gat tct cag ttc tgt aac cct Leu Thr Leu Thr Lys Lys Cys Thr Asp Asp Ser Gln Phe Cys Asn Pro 50 55 60	2
tcg aat cat gac tgc tgc agt ggg aag tgt atc gac gaa gga gac aac Ser Asn His Asp Cys Cys Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn 65 70 75	0
ggc ata tgc gct ata gtc cct gaa aac tct taacaatgta tactgacatt 29 Gly Ile Cys Ala Ile Val Pro Glu Asn Ser 80 85	0
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Pro Ala Val Arg Ser Ser Asp Val Met Gln Asp Ser Glu Asp Leu Thr 35 40 45	
Leu Thr Lys Lys Cys Thr Asp Asp Ser Gln Phe Cys Asn Pro Ser Asn 50 55 60	
His Asp Cys Cys Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile 65 70 75 80	
Cys Ala Ile Val Pro Glu Asn Ser 85	
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<400> 148

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Pro Ala Val Arg Ser Ser Asp Val Met Gln Asp Ser Glu Asp Leu Thr

35 40 45 Leu Thr Lys Lys Cys Thr Glu Asp Ser Gln Phe Cys Asn Pro Ser Asn 55 His Asp Cys Cys Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile Cys Ala Ile Val Pro Glu Asn Ser <210> 151 <211> 36 <212> PRT <213> Conus miles <220> <221> PEPTIDE <222> (1)..(36)<223> Xaa at residues 3, 23 and 34 is Glu or gamma-carboxy-Glu; Xaa at residues 10 and 33 is Pro or hydroxy-Pro <400> 151 Cys Thr Xaa Asp Ser Gln Phe Cys Asn Xaa Ser Asn His Asp Cys Cys Ser Gly Lys Cys Ile Asp Xaa Gly Asp Asn Gly Ile Cys Ala Ile Val Xaa Xaa Asn Ser 35 <210> 152 <211> 327 <212> DNA <213> Conus miliaris <220> <221> CDS <222> (12)..(239) <400> 152 ggatccatga a ctg acg tgt gtg gtg atc atc gcc gtg ctg ttc ctg acg 50 Leu Thr Cys Val Val Ile Ile Ala Val Leu Phe Leu Thr gcc tgt caa ctc act aca gct gtg act tcc tcc aga ggt caa cag aag 98 Ala Cys Gln Leu Thr Thr Ala Val Thr Ser Ser Arg Gly Gln Gln Lys cat cgt gct ctg agg tca act gac aaa aac tcc agg atg acc aag cgt 146 His Arg Ala Leu Arg Ser Thr Asp Lys Asn Ser Arg Met Thr Lys Arg tgc acg cct cca ggt gga ctc tgt tac cat gct tat ccc tgc tgc agc 194 Cys Thr Pro Pro Gly Gly Leu Cys Tyr His Ala Tyr Pro Cys Cys Ser aag act tgc aat ctc gat acc agc caa tgt gag cct agg tgg tca 239

Lys Thr Cys Asn Leu Asp Thr Ser Gln Cys Glu Pro Arg Trp Ser

65 70 75 tgaaccactc aataccctct cctctggagg cttcagagga actacattga aataaaaccg 299 cattgcaacg aaaaaaaaa aaaaaaaa 327 <210> 153 <211> 76 <212> PRT <213> Conus miliaris <400> 153 Leu Thr Cys Val Val Ile Ile Ala Val Leu Phe Leu Thr Ala Cys Gln Leu Thr Thr Ala Val Thr Ser Ser Arg Gly Gln Gln Lys His Arg Ala Leu Arg Ser Thr Asp Lys Asn Ser Arg Met Thr Lys Arg Cys Thr Pro 40 Pro Gly Gly Leu Cys Tyr His Ala Tyr Pro Cys Cys Ser Lys Thr Cys 55 Asn Leu Asp Thr Ser Gln Cys Glu Pro Arg Trp Ser 70 75 <210> 154 <211> 31 <212> PRT <213> Conus miliaris <220> <221> PEPTIDE <222> (1)..(31)<223> Xaa at residue 27 is Glu or gamma-carboxy-Glu; Xaa at residues 3, 4, 13 and 28 is Pro or hydroxy-Pro; Xaa at residue 30 is Trp (D or L) or bromo-Trp (D or L); Xaa at residues 9 and 12 is Tyr, 125 I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 154 Cys Thr Xaa Xaa Gly Gly Leu Cys Xaa His Ala Xaa Xaa Cys Cys Ser Lys Thr Cys Asn Leu Asp Thr Ser Gln Cys Xaa Xaa Arg Xaa Ser 25 <210> 155 <211> 193 <212> DNA <213> Conus monachus <220> <221> CDS <222> (28)..(162) <400> 155 tgtgtgtgtg tggttctggg tccagca tct gat gtc agg aat gcc gca gtc cac 54

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                    15
                                        20
                                                                     150
tat aat ccq atq aca atq tgc cct cct tgc atg tgc act aat acc tgc
Tyr Asn Pro Met Thr Met Cys Pro Pro Cys Met Cys Thr Asn Thr Cys
                                    35
aaa aaa agt ggc tgatgctcca ggaccctctg aaccacgacg t
                                                                     193
Lys Lys Ser Gly
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Pro Pro Cys Met Cys Thr Asn Thr Cys Lys Lys Ser Gly
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       3 is Pro or hydroxy-Pro; Xaa at residue 15 is Tyr, 125I-Tyr, mono
       -iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Ty
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Xaa Met Thr Met Cys Xaa Xaa Cys Met Cys Thr Asn Thr Cys Lys
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Ser
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       DNA
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		agc Ser 35																144
		gtc Val															:	192
		tct Ser															2	240
		aag Lys															2	282
tgaa	tcat	tt a	aacto	cgtt	ga aa	agatt	tttt	: aaa	aaato	ccag	agct	atat	gt t	cga	gaaa	aa	(342
ccga	agad	2																350
<210 <211 <212 <213	.>	159 94 PRT Conus	s mor	nachi	ıs													
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Leu	Lys	Ser 35	Asp	Phe	Tyr	Arg	Ala 40	Leu	Arg	Gly	Tyr	Asp 45	Arg	Gln	Cys	:		
Thr	Leu 50	Val	Asn	Asn	Cys	Asp 55	Arg	Asn	Gly	Glu	Arg 60	Ala	Cys	Asn	Gly	,		
Asp 65	Cys	Ser	Cys	Glu	Gly 70	Gln	Ile	Cys	Lys	Cys 75	Gly	Tyr	Arg	Val	Ser 80			
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<220 <221 <222 <223	> E	PEPTI (1) Kaa a	(48)		ıe 1	is G	Sln c	or py	/ro-0	Sln;	Xaa	at r	esio	dues	13	and	23	is

Glu or gamma-carboxy-Glu; Xaa at residue 35 is Pro or hydroxy-Pro; Xaa at residue 31 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

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<213> Conus pennaceus
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gga cag ata aca aga gat gtg gac aat ggg cag ctc gcg gac aac cgc
                                                                      96
Gly Gln Ile Thr Arg Asp Val Asp Asn Gly Gln Leu Ala Asp Asn Arg
cgt acc ctg cga tcg cag tgg aag caa gtg agt ttc ttc aag tca ctt
                                                                     144
Arg Thr Leu Arg Ser Gln Trp Lys Gln Val Ser Phe Phe Lys Ser Leu
gat aaa cga ctg act tgt aac gat cct tgc cag atg cat tcc gat tgc
                                                                     192
Asp Lys Arg Leu Thr Cys Asn Asp Pro Cys Gln Met His Ser Asp Cys
ggc ata tgt gaa tgc gtg gaa aat aaa tgc ata ttt ttc atg
                                                                     234
Gly Ile Cys Glu Cys Val Glu Asn Lys Cys Ile Phe Phe Met
taaacggatt gagtttgctt gtcaacacaa tgtcgcactg cagctcttct ctaccggtgg
                                                                     294
gtacatcgac caaacgacgc atcttttatt tctttgtctg tttcgtttgt tctcctgtgt
                                                                     354
tcataacgta cagageeett taactaeeet taetgetett eaettaaeet gataaeetga
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<213> Conus pennaceus
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Arg Thr Leu Arg Ser Gln Trp Lys Gln Val Ser Phe Phe Lys Ser Leu
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Gly Ile Cys Glu Cys Val Glu Asn Lys Cys Ile Phe Phe Met
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Cys Gln Leu Ser Thr Ala Asp Asp Ser Arg Asp Glu Gln Gln Asp Pro
ttg gtg agg tcg cat cgt gag gag cag aaa gcc gag gac ccc aag acg
                                                                      144
Leu Val Arg Ser His Arg Glu Glu Gln Lys Ala Glu Asp Pro Lys Thr
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gcc gag aga tgt tca gat ttc gga tcc gac tgt gtt cct gct act cat
                                                                     192
Ala Glu Arg Cys Ser Asp Phe Gly Ser Asp Cys Val Pro Ala Thr His
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                        55
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aac tgc tgc agt ggt gaa tgt ttt ggc ttc gag gac ttc ggc tta tgc
Asn Cys Cys Ser Gly Glu Cys Phe Gly Phe Glu Asp Phe Gly Leu Cys
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293
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413
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<213> Conus pulicarius
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Cys Gln Leu Ser Thr Ala Asp Asp Ser Arg Asp Glu Gln Gln Asp Pro
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Leu Val Arg Ser His Arg Glu Glu Gln Lys Ala Glu Asp Pro Lys Thr
Ala Glu Arg Cys Ser Asp Phe Gly Ser Asp Cys Val Pro Ala Thr His
Asn Cys Cys Ser Gly Glu Cys Phe Gly Phe Glu Asp Phe Gly Leu Cys
Thr
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cca aa Pro Ly															197
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Asn Al	a Ile 35	Asn	Ile	Arg	Arg	Arg 40	Ser	Thr	Pro	Lys	Thr 45	Glu	Ala	Cys	
Glu Gl 50		Cys	Glu	Leu	Glu 55	Glu	Lys	His	Суѕ	Cys 60	Cys	Ile	Arg	Ser	
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		ctt Leu														101
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		cag Gln 45														197
_		aag Lys		_	_	-	_			-	_		_	_	-	245
_		tgc Cys			tagt	ttct	gt a	acaco	ggtct	c at	tcat	tatt	tta	atcaç	gtac	300
aagt	taaa	acg a	agaco	ctato	ca ga	aagto	cgaaq	g gtt	gtgo	cata	attt	gata	aaa d	catto	gtttgc	360
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       at residue 25 is Pro or hydroxy-Pro; Xaa at residue 9 is Tyr, 125
       I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Cys Cys Ser Ser Lys His Xaa Xaa Xaa Arg Cys Ala Lys Ile Cys Phe
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       s Pro or hydroxy-Pro; Xaa at residue 22 is Tyr, 125I-Tyr, mono-io
       do-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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1
                5
                                    10
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tto act toa gat ogt goa tog gat gao agg aat acc aac gao aaa goa
                                                                       96
Phe Thr Ser Asp Arg Ala Ser Asp Asp Arg Asn Thr Asn Asp Lys Ala
            20
                                25
tet ege etg etc tet eac gtt gte agg gga tge tgt ggt age tat eec
                                                                      144
Ser Arg Leu Leu Ser His Val Val Arg Gly Cys Cys Gly Ser Tyr Pro
        35
                            40
aat gct gcc tgt cat cct tgc ggt tgt aaa gat agg cca tcg tat tgt
                                                                      192
Asn Ala Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys
ggt caa gga cgc tgatgctcca ggaccctctg aaccacgacg t
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Gly Gln Gly Arg
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Asn Ala Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys
Gly Gln Gly Arg
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       o-Tyr or O-phospho-Tyr
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ttc acc qta gat cgt qca act gat ggc agg agt gct gca gcc ata gcg
                                                                       96
Phe Thr Val Asp Arg Ala Thr Asp Gly Arg Ser Ala Ala Ala Ile Ala
                                25
ttt gcc ctg atc gct ccg acc gtc cgg gaa gga tgc tgt tct aat cct
                                                                      144
Phe Ala Leu Ile Ala Pro Thr Val Arg Glu Gly Cys Cys Ser Asn Pro
                            40
                                                                      192
gcc tgt cat cct tgc ggt tgt aaa gat agg cca tcg tat tgt ggt caa
Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys Gly Gln
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Gly Arg
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Phe Ala Leu Ile Ala Pro Thr Val Arg Glu Gly Cys Cys Ser Asn Pro
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Ala Cys His Pro Cys Gly Cys Lys Asp Arg Pro Ser Tyr Cys Gly Gln
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Gly Arg
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<222>
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       11 and 18 is Pro or hydroxy-Pro; Xaa at residue 20 is Tyr, 125I-T
       yr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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<400> 182

Xaa 1	Gly	Cys	Cys	Ser 5	Asn	Xaa	Ala	Cys	His 10	Xaa	Cys	Gly	Cys	Lys 15	Asp	
Arg	Xaa	Ser	Xaa 20	Cys	Gly	Gln										
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		tcc Ser														96
		agg Arg 35														144
_		tcc Ser		_					_	_		-	-	-		192
		ggc Gly														240
_	_	tgt Cys		-	_		tgat	ctaat	cg a	actct	ttaa	ac to	egtto	gaatt	=	291
attt	caaa	aaa t	ccaç	gagca	aa ta	atgtt	cga	g aaa	aaaco	cgaa	gac					334
<210 <211 <212 <213	L> = 2> = 1	184 87 PRT Conus	s pui	rpura	ascer	ns										
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Leu	Ala	Ser	Ser 20	Gln	Gln	Glu	Gly	Asp 25	Val	Gln	Ala	Arg	Lys 30	Thr	Arg	
Leu	Thr	Arg 35	Asp	Phe	Tyr	Arg	Thr 40	Leu	Pro	Val	Ser	Thr 45	Arg	Gly	Cys	
Ser	Gly 50	Ser	Pro	Cys	Phe	Lys 55	Asn	Lys	Thr	Cys	Arg 60	Asp	Glu	Cys	Ile	

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Cys Lys Cys Thr Cys Arg Glu
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       s Pro or hydroxy-Pro; Xaa at residue 26 is Trp (D or L) or bromo-
       Trp (D or L); Xaa at residue 29 is Tyr, 125I-Tyr, mono-iodo-Tyr,
       di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Cys Ile Cys Gly Gly Leu Ser Asn Cys Xaa Cys Gly Xaa Gly Gly Ser
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Arg Gly Cys Lys Cys Thr Cys Arg Xaa
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ttg acc atc tgt ctg ctt ctg ttt ccc att act gct ctt ctg atg gat
                                                                      100
Leu Thr Ile Cys Leu Leu Phe Pro Ile Thr Ala Leu Leu Met Asp
    10
                        15
                                             20
gga gat caa cct gca gac cga cct gca gaa cgt atg gat tac gac att
                                                                      148
Gly Asp Gln Pro Ala Asp Arg Pro Ala Glu Arg Met Asp Tyr Asp Ile
25
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                                                             40
tca tct gag gtg cat cgt ttg ctt gaa agg aga cac ccg ccc tgt tgc
                                                                      196
Ser Ser Glu Val His Arg Leu Leu Glu Arg Arg His Pro Pro Cys Cys
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                                                         55
atg tac ggc aga tgc cgt cga tat ccc gga tgc tct agt gcc tct tgt
                                                                      244
Met Tyr Gly Arg Cys Arg Arg Tyr Pro Gly Cys Ser Ser Ala Ser Cys
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                                 65
                                                     70
tgc cag gga gga taacgtgttg atgaccaact ttgttacacg gctacgtcaa
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Cys Gln Gly Gly
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Ala Glu Arg Met Asp Tyr Asp Ile Ser Ser Glu Val His Arg Leu Leu
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Pro Gly Cys Ser Ser Ala Ser Cys Cys Gln Gly Gly
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      s 7 and 13 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho
      -Tyr or O-phospho-Tyr
<400> 188
His Xaa Xaa Cys Cys Met Xaa Gly Arg Cys Arg Arg Xaa Xaa Gly Cys
Ser Ser Ala Ser Cys Cys Gln Gly
            20
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      lpho-Tyr or O-phospho-Tyr
<400> 189
Gly Xaa Xaa Cys Cys Leu Xaa Gly Ser Cys Arg Xaa Phe Xaa Gly Cys
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10

15

Xaa	Asn	Ala	Leu 20	Cys	Cys	Arg	Lys									
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		agt Ser														96
		gca Ala														144
		tgc Cys														192
		gga Gly 65														237
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tact	tac	ctg t	gtgt	ggt	ca to	gaaco	cacto	c agt	agct	taca	cct	ctggt	egg (cttca	agagga	357
cgta	atato	caa a	aataa	aaac	ca ca	attgo	caaaa	a aaa	aaaa	aaaa	aaa					400
<210 <211 <212 <213	L> - 1 2> - 1	191 77 PRT Conus	s que	erci	nus											
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Ala	Ala	Ser 35	Leu	Arg	Gly	Gly	Met 40	Trp	Asn	Leu	Arg	Asp 45	Thr	Arg	Ala	
Суѕ	Ser 50	Gln	Val	Gly	Glu	Ala 55	Cys	Phe	Pro	Gln	Lys 60	Pro	Суѕ	Cys	Pro	
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<213> Conus quercinus
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        14 and 17 is Pro or hydroxy-Pro
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Xaa Gly Phe Leu Cys Asn His Ile Gly Gly Met Cys His His
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                                      10
                                                           15
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Thr Thr Ala Ala Pro Leu Asp Thr Thr Thr Val Leu Leu Ser Thr Thr
            20
                                25
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aca cgc gat gtc aag ggc tgt gtg tac gag ggc ata gag tac agt gtc
                                                                      145
Thr Arg Asp Val Lys Gly Cys Val Tyr Glu Gly Ile Glu Tyr Ser Val
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gga gag acc tac cag gca gac tgc aac acg tgt cgc tgt gat ggc ttt
                                                                      193
Gly Glu Thr Tyr Gln Ala Asp Cys Asn Thr Cys Arg Cys Asp Gly Phe
    50
                        55
                                                                      241
gac ctg gct aca tgc acc gtc gcg ggc tgc aca ggc ttt gga ccc gag
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                             Met Ser Gly Leu Gly Ile Met Val Leu
acc ctt cta ctt ctt gtg tcc atg gca acc agt cgt cag gat aga gga
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Thr Leu Leu Leu Val Ser Met Ala Thr Ser Arg Gln Asp Arg Gly
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gtg gga cag ctg atg cca cgc gtc tcg ttc aaa gcc tgc aaa tca aat
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Val Gly Gln Leu Met Pro Arg Val Ser Phe Lys Ala Cys Lys Ser Asn
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tat gat tgc ccc cag cgt ttc aaa tgc tgc agt tac acc tgg aat gga
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Tyr Asp Cys Pro Gln Arg Phe Lys Cys Cys Ser Tyr Thr Trp Asn Gly
tcc agt gga tac tgt aaa cgt gtt tgc tat ctt tat cgt tagtgtaata
                                                                      306
Ser Ser Gly Tyr Cys Lys Arg Val Cys Tyr Leu Tyr Arg
                            65
cacaaagtga ctctgttcat tcctctccat catctcttta gaaacaacac ggtgtcgaga
                                                                      366
tcgtttcttt gtgatgaaga gtagtatcac gggcagagtt cactagagat ctcaaatgaa
                                                                      426
aaacaagatt atttagtaag ttggggaaaa tctggatctc gaaaagattc cttgaaaact
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ccgtatttaa cacgcttgag agatgataat aaagaattct gaaagacaaa
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Lys Cys Cys Ser Tyr Thr Trp Asn Gly Ser Ser Gly Tyr Cys Lys Arg
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Val Cys Tyr Leu Tyr Arg
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<222>
      (1)..(34)
<223> Xaa at residue 9 is Pro or hydroxy-Pro; Xaa at residue 19 is Trp
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(D or L) or bromo-Trp (D or L); Xaa at residues 6, 17 and 33 is T yr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phosp ho-Tyr

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Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Thr

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Pro Lys Arg Glu Phe Gln Arg Ile Leu Leu Arg Ser Gly Arg Lys Cys
                            40
Asn Phe Asp Lys Cys Lys Gly Thr Gly Val Tyr Asn Cys Gly Glu Ser
Cys Ser Cys Glu Gly Leu His Ser Cys Arg Cys Thr Tyr Asn Ile Gly
Ser Met Lys Ser Gly Cys Ala Cys Ile Cys Thr Tyr Tyr
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<222>
       (1)..(47)
       Xaa at residues 17 and 22 is Glu or gamma-carboxy-Glu; Xaa at res
       idues 13, 31, 46 and 47 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-
       Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Ile Gly Ser Met Lys Ser Gly Cys Ala Cys Ile Cys Thr Xaa Xaa
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                5
                                                         15
                                     10
                                                                       96
ctg gca tcc agg cag cag gaa gga gat gtc cag gca agg aaa aca cgc
Leu Ala Ser Arg Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg
                                                     30
            20
                                 25
ctg acg agc gac ttc tat agt gtt ctg caa agg tat gga cta gga tgc
                                                                      144
Leu Thr Ser Asp Phe Tyr Ser Val Leu Gln Arg Tyr Gly Leu Gly Cys
                                                 45
        35
                             40
gct ggc act tgt ggt tca agc agc aat tgt gtt aga gat tat tgt gac
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Ala Gly Thr Cys Gly Ser Ser Ser Asn Cys Val Arg Asp Tyr Cys Asp 55 tgc cca aaa ccc aat tgt tac tgc act ggc aaa ggc ttt cgt caa cca 240 Cys Pro Lys Pro Asn Cys Tyr Cys Thr Gly Lys Gly Phe Arg Gln Pro 70 294 qqa tqc qqq tqt tca tqt ttg ggg tgattaattg gctcttttaa ctcgttgaac Gly Cys Gly Cys Ser Cys Leu Gly 85 338 gatttaaaaa atccagagca atatgttcga gaaaaaccga agac 204 <210> <211> 88 <212> PRT <213> Conus radiatus <400> 204 Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Thr Leu Ala Ser Arg Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg 20 Leu Thr Ser Asp Phe Tyr Ser Val Leu Gln Arg Tyr Gly Leu Gly Cys 40 Ala Gly Thr Cys Gly Ser Ser Ser Asn Cys Val Arg Asp Tyr Cys Asp Cys Pro Lys Pro Asn Cys Tyr Cys Thr Gly Lys Gly Phe Arg Gln Pro Gly Cys Gly Cys Ser Cys Leu Gly <210> 205 <211> 44 <212> PRT <213> Conus radiatus <220> PEPTIDE <221> <222> (1)..(44)Xaa at residues 23, 25 and 37 is Pro or hydroxy-Pro; Xaa at resid ues 1, 19 and 28 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, Osulpho-Tyr or O-phospho-Tyr <400> 205 Xaa Gly Leu Gly Cys Ala Gly Thr Cys Gly Ser Ser Ser Asn Cys Val 15 10 Arg Asp Xaa Cys Asp Cys Xaa Lys Xaa Asn Cys Xaa Cys Thr Gly Lys Gly Phe Arg Gln Xaa Gly Cys Gly Cys Ser Cys Leu 40

<210> 206

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ctt tto															101
aag caq Lys Glr															149
ctc act Leu Thi															197
cag gad Gln Asr 60															245
aag ata Lys Ile 75	-			tagt	tctct	tgt a	acgct	tgtc	tc at	ttca	ttato	c tca	atcaç	gtac	300
aagtgta	aac (gagad	caggt	cc aq	gaaa	gtcga	a ago	gttgt	ctcg	aaat	tttga	ata a	agcat	tgttt	360
actggga	acga a	acgga	a												375
<210> <211> <212> <213>	207 79 PRT Conus	s spo	onsa.	lis											
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Met Ser	Gly	Leu	Gly 5	Ile	Met	Val	Leu	Thr 10	Leu	Leu	Leu	Leu	Val 15	Ser	
Met Ala	Thr	Ser 20	His	Lys	Asp	Gly	Gly 25	Glu	Lys	Gln	Ala	Met 30	Gln	Arg	
Asp Ala	Ile 35	Asn	Val	Arg	Leu	Arg 40	Arg	Ser	Leu	Thr	Arg 45	Arg	Ala	Val	
Thr Glu 50	ı Ala	Cys	Thr	Glu	Asp 55	Cys	Lys	Thr	Gln	Asp 60	Lys	Lys	Суs	Cys	
Gly Glu 65	Met	Asn	Gly	Gln 70	His	Thr	Cys	Ala	Lys 75	Ile	Cys	Leu	Gly		
<210> <211>	208 32														

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<221> PEPTIDE
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      (1)..(32)
<223> Xaa at residues 4, 8 and 20 is Glu or gamma-carboxy-Glu
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Cys Cys Gly Xaa Met Asn Gly Gln His Thr Cys Ala Lys Ile Cys Leu
<210> 209
<211> 8
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<213> Conus stercusmuscarum
<220>
<221> PEPTIDE
<222>
      (1)..(8)
<223> Xaa at residues 3 and 6 is Pro or hydroxy-Pro; Xaa at residue 4 i
      s D-Trp
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Gly Cys Xaa Xaa Gln Xaa Val Cys
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Cys Ile Ile Arg Asn Cys Xaa Arg Gly
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<211> 238
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<213> Conus striatus
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   Ser Thr Arg Cys Leu Pro Asp Gly Thr Ser Cys Leu Phe Ser Arg
atc aga tgc tgc ggt act tgc agt tca atc tta aag tca tgt gtg agc
                                                                     96
Ile Arg Cys Cys Gly Thr Cys Ser Ser Ile Leu Lys Ser Cys Val Ser
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	20	23		30	
tgatcca	gcg gttgatcttc ctccctctgt	gctccatcct	tttctgcctg	agttctcctt	156
acctgag	agt ggtcatgaac cactcatcac	ctactcttct	ggaggcttca	gaggagctac	216
agtgaaa	taa aagccgcatt gc				238
<211> <212>	212 31 PRT Conus striatus				
	212 Arg Cys Leu Pro Asp Gly '5	Thr Ser Cys 10	Leu Phe Ser	Arg Ile	
Arg Cys	Cys Gly Thr Cys Ser Ser 3	Ile Leu Lys 25	Ser Cys Val	. Ser	
<211> <212>	213 28 PRT Conus striatus				
<222>	PEPTIDE (1)(28) Xaa at residue 3 is Pro o	r hydroxy-Pr	o		
	213 Xaa Asp Gly Thr Ser Cys 1 5	Leu Phe Ser 10	Arg Ile Arg	g Cys Cys 15	
Gly Thr	Cys Ser Ser Ile Leu Lys 3 20	Ser Cys Val 25	Ser		
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	CDS (171)(539)				
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gacggca	gac cagctgggga ccagacagac	gtcaaacagc	atcgcagtca	ggtgtggaga	120
tcccaag	aca cccagaagaa ggagacagaa	gagttatcgt	tcgtaacaca	atg gcc Met Ala 1	176
	atg tcg atg aca ctc tgc a Met Ser Met Thr Leu Cys I 5 10				224

gcc act gtc att gat tcc act cag tta caa gaa cca gat ctc agt cgc 272

Ala Thr Val Ile Asp Ser Thr Gln Leu Gln Glu Pro Asp Leu Ser Arg 20 25 30	
atg cga cgc agc ggg cct gct gac tgt tgc agg atg aaa gag tgt tgc Met Arg Arg Ser Gly Pro Ala Asp Cys Cys Arg Met Lys Glu Cys Cys 35 40 45 50	320
acc gac aga gtg aac gag tgt cta cag cgc tat tct ggc cgg gaa gat Thr Asp Arg Val Asn Glu Cys Leu Gln Arg Tyr Ser Gly Arg Glu Asp 55 60 65	368
aaa ttc gtt tcg ttt tgt tat cag gag gcc aca gtc aca tgt gga tct Lys Phe Val Ser Phe Cys Tyr Gln Glu Ala Thr Val Thr Cys Gly Ser 70 75 80	416
tit aac gaa atc gtg ggc tgt tgc tat gga tat caa atg tgc atg ata Phe Asn Glu Ile Val Gly Cys Cys Tyr Gly Tyr Gln Met Cys Met Ile 85 90 95	464
cga gtt gtg aaa ccg aac agt cta agt ggg gcc cat gag gcg tgc aaa Arg Val Val Lys Pro Asn Ser Leu Ser Gly Ala His Glu Ala Cys Lys 100 105 110	512
acc gtt tct tgt ggt aac cct tgc gct tgaggtgtcc tcgcgccacg Thr Val Ser Cys Gly Asn Pro Cys Ala 115 120	559
tcacctgtgt acagegeegt caccagagee etgatettta tgeeettate tgtetttttg	619
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<222>
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<223> Xaa at residues 11, 19, 28, 38, 48 and 74 is Glu or gamma-carboxy
       -Glu; Xaa at residues 3, 66 and 84 is Pro or hydroxy-Pro; Xaa at
       residues 24, 26, 54 and 56 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-io
       do-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Val Asn Xaa Cys Leu Gln Arg Xaa Ser Gly Arg Xaa Asp Lys Phe Val
Ser Phe Cys Xaa Gln Xaa Ala Thr Val Thr Cys Gly Ser Phe Asn Xaa
                            40
Ile Val Gly Cys Cys Xaa Gly Xaa Gln Met Cys Met Ile Arg Val Val
Lys Xaa Asn Ser Leu Ser Gly Ala His Xaa Ala Cys Lys Thr Val Ser
Cys Gly Asn Xaa Cys Ala
<210> 217
<211> 14
<212> PRT
<213> Conus striatus
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      (1)..(14)
<223> Xaa at residues 1 and 3 is Trp (D or L) or bromo-Trp (D or L)
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Xaa Ser Xaa Arg Met Gly Asn Gly Asp Arg Arg Ser Asp Gln
<210>
      218
<211>
     343
<212> DNA
<213> Conus striolatus
<220>
<221>
      CDS
<222>
      (1)..(276)
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atg atg tcg aaa atg gga gct atg ttt gtc ctt ttg ctt ctt ttg acc
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1 5 10 15 96 ctg gca tcc agc cag gag gga gat gtc cag gca agg aaa aca agc Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Ser 20 ctg aag agc gac ttc tat cgt gct ctg aga ccg tat gac aga cag tgc 144 Leu Lys Ser Asp Phe Tyr Arg Ala Leu Arg Pro Tyr Asp Arg Gln Cys 35 192 act ttt gtc aac aat tgt caa cag aac ggt gcg tgt aac ggt gat tgc Thr Phe Val Asn Asn Cys Gln Gln Asn Gly Ala Cys Asn Gly Asp Cys 50 240 tot tgc ggg gac cag att tgt aaa tgc ggt tat aga atc agt cct ggg Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Tyr Arg Ile Ser Pro Gly 286 agg tca gga tgc gcg tgt act tgt aga aat gcc aaa tgaatcactt Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys 85 aactcgttga aagattttta aaaatccaga gctatatgtt cgagaaaaac cgaagac 343 219 <210> <211> 92 <212> PRT <213> Conus striolatus Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Leu Thr 10 Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Ser Leu Lys Ser Asp Phe Tyr Arg Ala Leu Arg Pro Tyr Asp Arg Gln Cys Thr Phe Val Asn Asn Cys Gln Gln Asn Gly Ala Cys Asn Gly Asp Cys Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Tyr Arg Ile Ser Pro Gly Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys 85 <210> 220 <211> 46 <212> PRT <213> Conus striolatus <220> <221> PEPTIDE (1)..(46) <222> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 33 is Pro or <223> hydroxy-Pro; Xaa at residue 29 is Tyr, 125I-Tyr, mono-iodo-Tyr, d

i-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

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Asp Cys Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Xaa Arg Ile Ser 20 25 30
Xaa Gly Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys 35 40 45
<210> 221 <211> 398 <212> DNA <213> Conus tessulatus
<220> <221> CDS <222> (7)(240)
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acg gcc tgt caa ttc att ata gct gat ttc tcc aga gat aag cgg gta 96 Thr Ala Cys Gln Phe Ile Ile Ala Asp Phe Ser Arg Asp Lys Arg Val 15 20 25 30
cat cgt gca gag agg ttg aga gac ata atg cag aat ttc aga ggt acc His Arg Ala Glu Arg Leu Arg Asp Ile Met Gln Asn Phe Arg Gly Thr 35 40 45
agg tcg tgc gcg gaa ttt ggt gaa gtt tgt agt tct acc gct tgc tgc 192 Arg Ser Cys Ala Glu Phe Gly Glu Val Cys Ser Ser Thr Ala Cys Cys 50 55 60
cct gat ttg gat tgc gtt gag gcc tat tca ccc atc tgt ctc tgg gaa 240 Pro Asp Leu Asp Cys Val Glu Ala Tyr Ser Pro Ile Cys Leu Trp Glu 65 70 75
tagtctggca tctgatattt cccgtctgtg ctctacctac ttctgccgga ttcatccata 300
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atcaaaataa aaccacattg caaaaaaaaa aaaaaaaa 398
<210> 222 <211> 78 <212> PRT <213> Conus tessulatus
<400> 222 Met Lys Leu Thr Cys Val Val Ile Ile Ala Val Leu Phe Leu Thr Ala 1 5 10 15
Cys Gln Phe Ile Ile Ala Asp Phe Ser Arg Asp Lys Arg Val His Arg 20 25 30
Ala Glu Arg Leu Arg Asp Ile Met Gln Asn Phe Arg Gly Thr Arg Ser 35 40 45

Cys Ala Glu Phe Gly Glu Val Cys Ser Ser Thr Ala Cys Cys Pro Asp 50 Leu Asp Cys Val Glu Ala Tyr Ser Pro Ile Cys Leu Trp Glu 70 <210> 223 <211> 31 <212> PRT <213> Conus tessulatus <220> <221> PEPTIDE <222> (1)..(31)Xaa at residues 4, 7 and 22 is Glu or gamma-carboxy-Glu; Xaa at r <223> esidues 16 and 26 is Pro or hydroxy-Pro; Xaa at residue 30 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 24 is Tyr, 125I-T yr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 223 Ser Cys Ala Xaa Phe Gly Xaa Val Cys Ser Ser Thr Ala Cys Cys Xaa Asp Leu Asp Cys Val Xaa Ala Xaa Ser Xaa Ile Cys Leu Xaa Xaa 20 <210> 224 <211> 273 <212> DNA <213> Conus textile <400> 224 cqattqcaqq qgttacqatq cqccqtqtaq ctctqqcqcq ccatqttqtq attqqtqqac 60 atgttcagca cgaaccaacc gctgttttta ggctgaccac aagccatccg acatcaccac 120 tctcctcttc agaggcttca aggctttttg ttctcctttt gaagaatctt tacgagtgaa 180 caaacaagta gaatagcacg tttttccccc tttgaaaaat caataatgga ggttaaacaa 240 aactgtcttc ttcaataaag attttatcat aat 273 <210> 225 <211> 50 <212> PRT <213> Conus textile <400> 225 Ile Gln Gly Gly Gly Asp Glu Arg Gln Lys Ala Lys Ile Asn Phe Leu Ser Arg Ser Asp Arg Asp Cys Arg Gly Tyr Asp Ala Pro Cys Ser Ser Gly Ala Pro Cys Cys Asp Trp Trp Thr Cys Ser Ala Arg Thr Asn Arg 40 Cys Phe

50

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<213> Conus textile
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       8 and 19 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 5
       is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-p
       hospho-Tyr
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Asp Xaa Xaa Thr Cys Ser Ala Arg Thr Asn Arg Cys Phe
            20
                                25
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       23
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       (1)..(23)
<223> Xaa at residue 16 is Glu or gamma-carboxy-Glu; Xaa at residues 3,
       11, 12, 22 and 23 is Pro or hydroxy-Pro; Xaa at residues 4, 5 an
       d 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr o
       r O-phospho-Tyr
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Ala Ser Gly Cys Arg Xaa Xaa
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      (1)..(186)
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gga cct agc gtt gat gcc caa ctg aag acc aaa gat gat gtg ccc ctg
                                                                      96
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
            20
tca tct ttc cga gat cat gca aag agt acc cta cga aga ctt cag gac
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Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
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<211> 62
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<213> Conus textile
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                5
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
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Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
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      hydroxy-Pro; Xaa at residue 6 is Tyr, 125I-Tyr, mono-iodo-Tyr, di
       -iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
Xaa Thr Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
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      115
<212>
      DNA
<213>
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<220>
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      (2)..(94)
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                                                                      49
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cag tgt tgt tct gag gtt tgt gat tat tac tgc cgc cta tgg cga
                                                                      94
Gln Cys Cys Ser Glu Val Cys Asp Tyr Tyr Cys Arg Leu Trp Arg
            20
                                25
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Gln Cys Cys Ser Glu Val Cys Asp Tyr Tyr Cys Arg Leu Trp Arg 20 25 30	
<210> 233 <211> 28 <212> PRT <213> Conus textile	
<pre><220> <221> PEPTIDE <222> (1)(28) <223> Xaa at residue 18 is Glu or gamma-carboxy-Glu; Xaa at residue is Pro or hydroxy-Pro; Xaa at residues 5 and 27 is Trp (D or bromo-Trp (D or L); Xaa at residue 3, 22 and 23 is Tyr, 1 r, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr</pre>	or L) o .25I-Ty
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Ser Xaa Val Cys Asp Xaa Xaa Cys Arg Leu Xaa Arg 20 25	
<210> 234 <211> 279 <212> DNA <213> Conus textile	
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tgt gtg gaa caa tgg aaa tac tgc acc cga gag tcc tta tgt tgc gcg Cys Val Glu Gln Trp Lys Tyr Cys Thr Arg Glu Ser Leu Cys Cys Ala 15 20 25 30	96
ggt ttg tgt ttg ttt agt ttc tgc att cta taacgctaat ccagagtcgt Gly Leu Cys Leu Phe Ser Phe Cys Ile Leu 35 40	146
atattccgtc taagctccac ctggcactgt ctggtatgtt cctgccagtg actggtctca	206
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       Conus textile
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Arg Met Lys Asn Ser Glu Asn Val Lys Leu Ser Lys Arg Lys Cys Val
Glu Gln Trp Lys Tyr Cys Thr Arg Glu Ser Leu Cys Cys Ala Gly Leu
Cys Leu Phe Ser Phe Cys Ile Leu
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       236
<211>
      27
<212> PRT
<213> Conus textile
<220>
<221>
      PEPTIDE
<222>
      (1)..(27)
<223> Xaa at residues 4 and 12 is Glu or gamma-carboxy-Glu; Xaa at resi
       due 6 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 8 is
       Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phos
       pho-Tyr
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Ala Gly Leu Cys Leu Phe Ser Phe Cys Ile Leu
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gcctgcatag ctgtcttctc cacgaagctt tccacaggta taaataacgc ttcagtctcc
                                                                      120
cgtcctgtat tgggccgccg ttacaagcca gaccgataca gccaggtcca gtctactttg
                                                                      180
                                                                      234
cgagtgagtt aaaagctcca gcattctacc agcatcacca ga atg aag gtg agc
                                               Met Lys Val Ser
age gtg etg ate gtg get aeg etg aea etg aee gea gge eag etg gtt
                                                                      282
Ser Val Leu Ile Val Ala Thr Leu Thr Leu Thr Ala Gly Gln Leu Val
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5					10					15					20		
		tct Ser															330
		gct Ala															378
		tgt Cys 55															426
		tgt Cys															471
taad	cgcta	aat d	ccaga	agtc	gt at	atto	ccgt	c taa	agcto	cca							510
<210 <211 <212 <213	1> 2 2> 1	238 83 PRT Conus	s tex	ĸtil€	e												
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Gly	Gln	Leu	Val 20	Ser	Ala	Ser	Ser	His 25	Tyr	Ser	Lys	Asp	Val 30	Gln	Ile		
Leu	Pro	Ser 35	Val	Arg	Ser	Ala	Asp 40	Glu	Val	Glu	Asn	Ser 45	Glu	Asn	Val		
Arg	Leu 50	Ser	Lys	Arg	Arg	Cys 55	Val	Glu	Gln	Trp	Glu 60	Val	Cys	Gly	Ile		
Ile 65	Leu	Phe	Ser	Ser	Ser 70	Cys	Cys	Gly	Gln	Leu 75	Cys	Leu	Phe	Gly	Phe 80		
Cys	Val	Leu															
<210 <210 <210 <210	l> 2 2> 1	239 29 PRT Conus	s tex	ktil€)												
<220 <221 <222 <223	1> 1 2> 3> 2	PEPTI (1) Xaa a ue 5	(29) at re	esidu									оху-(Glu;	Xaa	at	resid
<400 Cys 1		239 Xaa	Gln	Xaa 5	Xaa	Val	Cys	Gly	Ile 10	Ile	Leu	Phe	Ser	Ser 15	Ser		
Cys	Суѕ	Gly	Gln 20	Leu	Cys	Leu	Phe	Gly 25	Phe	Cys	Val	Leu					

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<222>
      (1)..(27)
<223> Xaa at residues 9 and 13 is Glu or gamma-carboxy-Glu; Xaa at resi
       dues 4, 7 and 23 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
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Asp Asn Cys Val Arg Ser Xaa Cys Thr Leu Phe
            20
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      27
<212>
      PRT
<213> Conus textile
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<222>
      (1)..(27)
<223> Xaa at residues 8 and 13 is Glu or gamma-carboxy-Glu
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Ile Cys Thr Ser Arg Gly Cys Gly Ala Val Asn
            20
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<211>
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<212> DNA
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<222>
      (22)..(258)
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                                                                      51
                        Met Ser Gly Leu Gly Ile Met Val Leu Thr
ctt cta ctt ctt gtg tcc atg gca acc agt cat cgt tat gca aga gaa
                                                                      99
Leu Leu Leu Val Ser Met Ala Thr Ser His Arg Tyr Ala Arg Glu
aag cag gcg acg cga agg gac gca gtc aac gtc aga cgg aga agc aga
                                                                     147
Lys Gln Ala Thr Arg Arg Asp Ala Val Asn Val Arg Arg Arg Ser Arg
            30
                                35
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195
cca aaa aca aag gag tgc gaa agg tac tgt gag ctg gag gaa aag cac
Pro Lys Thr Lys Glu Cys Glu Arg Tyr Cys Glu Leu Glu Glu Lys His
        45
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tgc tgc ata aga agt aac gga ccc aaa tgt tcc aga ata tgc ata
Cys Cys Cys Ile Arg Ser Asn Gly Pro Lys Cys Ser Arg Ile Cys Ile
    60
                        65
                                                                      298
ttc aaa ttt tgg tgt tagttttctg tacactgtcc attcattatc ttatcagtac
Phe Lys Phe Trp Cys
75
aagtqtaaac qaqacatgtc agaaagtcga aggttgtgcg taatttgata agcattgttt
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actgggacga acgga
                                                                      373
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<212> PRT
<213> Conus tulipa
<400> 243
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Asp Ala Val Asn Val Arg Arg Arg Ser Arg Pro Lys Thr Lys Glu Cys
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Asn Gly Pro Lys Cys Ser Arg Ile Cys Ile Phe Lys Phe Trp Cys
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       37
<212>
       PRT
      Conus tulipa
<213>
<220>
<221>
      PEPTIDE
<222>
      (1)..(37)
      Xaa at residues 5, 7, 11, 13 and 14 is Glu or gamma-carboxy-Glu;
       Xaa at residues 1 and 25 is Pro or hydroxy-Pro; Xaa at residue 36
       is Trp (D or L) or bromo-Trp (D or L);
<220>
<221>
      PEPTIDE
<222>
      (1)..(37)
<223> Xaa at residue 9 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
<400> 244
Xaa Lys Thr Lys Xaa Cys Xaa Arg Xaa Cys Xaa Leu Xaa Xaa Lys His
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                                    10
                                                        15
Cys Cys Cys Ile Arg Ser Asn Gly Xaa Lys Cys Ser Arg Ile Cys Ile
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aag cag gcg atg c Lys Gln Ala Met G 30					147
gtc att cgg aga c Val Ile Arg Arg P 45					195
gag gag aaa cac t Glu Glu Lys His C 60					243
cct aag tgc ttg g Pro Lys Cys Leu G 75		_	ctgt acactgtct	c attcattatc	297
ttatcagtac acgtgt	aacg agaca	tgtca gaaag	stcgaa ggtagtgo	gt aatttgataa	357
gcattgttta ctggga	cgaa cgga				381
<210> 246 <211> 82 <212> PRT <213> Conus tuli	pa				
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Asp Ala Lys Asn P	he Ser Arg	Arg Arg Le	u Val Ile Arg 45	Arg Pro Lys	
Thr Arg Glu Cys G	lu Met Gln 55	Cys Glu Gl	n Glu Glu Lys 60	His Cys Cys	

Arg Val Arg Asp Gly Thr Gly Gln Cys Ala Pro Lys Cys Leu Gly Ile Asn Trp <210> 247 <211> 36 <212> PRT <213> Conus tulipa <220> <221> PEPTIDE <222> (1)..(36)Xaa at residues 5, 7, 11, 13 and 14 is Glu or gamma-carboxy-Glu; <223> Xaa at residues 1 and 29 is Pro or hydroxy-Pro; Xaa at residue 36 is Trp (D or L) or bromo-Trp (D or L) <400> 247 Xaa Lys Thr Arg Xaa Cys Xaa Met Gln Cys Xaa Gln Xaa Xaa Lys His Cys Cys Arg Val Arg Asp Gly Thr Gly Gln Cys Ala Xaa Lys Cys Leu Gly Ile Asn Xaa <210> 248 <211> 363 <212> DNA <213> Conus tulipa <220> <221> CDS <222> (1)..(264)<400> 248 48 atg atg tcg aaa atg gga gct atg ttt gtc ctt ttg ctt ctt ttc acc Met Met Ser Lys Met Gly Ala Met Phe Val Leu Leu Leu Phe Thr 10 96 ctq qca tcc agc cag cag gaa gga gat gtc cag gca agg aaa aca cgc Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg 20 25 30 ctq aaq aqc qac ttc tat cgt gct ctg cca agg ttt ggc cca ata tgc 144 Leu Lys Ser Asp Phe Tyr Arg Ala Leu Pro Arg Phe Gly Pro Ile Cys 40 45 35 act tqt ttt aaa agc cag aac tgt cgg ggt tct tgt gaa tgc atg tca 192 Thr Cys Phe Lys Ser Gln Asn Cys Arg Gly Ser Cys Glu Cys Met Ser 50 cct ccc ggt tgt tac tgc agt aac aat ggc att cgt gaa cga gga tgc 240 Pro Pro Gly Cys Tyr Cys Ser Asn Asn Gly Ile Arg Glu Arg Gly Cys 70 80 65 294

tcg tgt aca tgt cca ggg act ggt tgaatgattt gaaaaattca gagcaatatg

Ser Cys Thr Cys Pro Gly Thr Gly
85

ttgcagaaaa accgaagacc gagacttctc acaataaatc cataaagaca ttaaaaaaaa 354 aaaaaaaaa 363

<210> 249 <211> 88 <212> PRT <213> Conus tulipa

<400> 249

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Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg 20 25 30

Leu Lys Ser Asp Phe Tyr Arg Ala Leu Pro Arg Phe Gly Pro Ile Cys 35 40 45

Thr Cys Phe Lys Ser Gln Asn Cys Arg Gly Ser Cys Glu Cys Met Ser 50 55 60

Pro Pro Gly Cys Tyr Cys Ser Asn Asn Gly Ile Arg Glu Arg Gly Cys 70 75 80

Ser Cys Thr Cys Pro Gly Thr Gly 85

<210> 250 <211> 44

<212> PRT

<213> Conus tulipa

<220>

<221> PEPTIDE

<222> (1)..(44)

<223> Xaa at residues 18 and 34 is Glu or gamma-carboxy-Glu; Xaa at residues 3, 22, 23 and 42 is Pro or hydroxy-Pro; Xaa at residue 26 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-ph ospho-Tyr

<400> 250

Phe Gly Xaa Ile Cys Thr Cys Phe Lys Ser Gln Asn Cys Arg Gly Ser 1 5 10 15

Cys Xaa Cys Met Ser Xaa Xaa Gly Cys Xaa Cys Ser Asn Asn Gly Ile 20 25 30

Arg Xaa Arg Gly Cys Ser Cys Thr Cys Xaa Gly Thr 35 40

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<211> 383 <212> DNA

<213> Conus tulipa

<220>

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ctg gca tcc agc cag cag gaa gga gat gtc cag gca agg aaa aca cgc
                                                                      96
Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg
ctg aag agc gac ttc tat cgt act ctg gca ata tct gac aga gga tgc
                                                                     144
Leu Lys Ser Asp Phe Tyr Arg Thr Leu Ala Ile Ser Asp Arg Gly Cys
                            40
        35
act ggc aac tgt gat tgg acg tgt agc ggt gat tgc agc tgc cag ggc
                                                                     192
Thr Gly Asn Cys Asp Trp Thr Cys Ser Gly Asp Cys Ser Cys Gln Gly
   50
                        55
                                                                     240
aca tot gad tog tgt dad tgd att dda daa toa ata ggd aad aga
Thr Ser Asp Ser Cys His Cys Ile Pro Pro Lys Ser Ile Gly Asn Arg
                    70
tgc cgg tgt cag tgt aaa aga aaa atc gaa att gac tgattctttt
                                                                     286
Cys Arg Cys Gln Cys Lys Arg Lys Ile Glu Ile Asp
                                                                     346
aactcqttqa acgatttaaa aatcagacca atatgtaggc agaaaaccga agactctgag
actctcgtaa taatcgtaag caaaaaaaa aaaaaaa
                                                                     383
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<211>
      92
<212> PRT
<213> Conus tulipa
<400> 252
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Leu Ala Ser Ser Gln Gln Glu Gly Asp Val Gln Ala Arg Lys Thr Arg
Leu Lys Ser Asp Phe Tyr Arg Thr Leu Ala Ile Ser Asp Arg Gly Cys
Thr Gly Asn Cys Asp Trp Thr Cys Ser Gly Asp Cys Ser Cys Gln Gly
Thr Ser Asp Ser Cys His Cys Ile Pro Pro Lys Ser Ile Gly Asn Arg
                                        75
Cys Arg Cys Gln Cys Lys Arg Lys Ile Glu Ile Asp
<210>
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      46
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<213> Conus tulipa

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<222>
      (1)..(46)
<223> Xaa at residue 44 is Glu or gamma-carboxy-Glu; Xaa at residues 27
       and 28 is Pro or hydroxy-Pro; Xaa at residue 8 is Trp (D or L) o
       r bromo-Trp (D or L)
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Gln Gly Thr Ser Asp Ser Cys His Cys Ile Xaa Xaa Lys Ser Ile Gly
Asn Arg Cys Arg Cys Gln Cys Lys Arg Lys Ile Xaa Ile Asp
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      254
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      404
<212>
      DNA
<213> Conus virgo
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      Met Lys Leu Thr Cys Val Val Ile Ile Thr Val Leu Phe Leu
acg gcc agt cag ctc att aca gct gat tac tcc aga gat cag cgg cag
                                                                   96
Thr Ala Ser Gln Leu Ile Thr Ala Asp Tyr Ser Arg Asp Gln Arg Gln
                   20
tac cgt gca gtg agg ttg gga gat gaa atg cgg aat ttc aaa ggt gcc
                                                                   144
Tyr Arg Ala Val Arg Leu Gly Asp Glu Met Arg Asn Phe Lys Gly Ala
               35
                                  40
agg gac tgc ggg gga caa ggt gaa ggt tgt tat act caa cct tgc tgc
                                                                   192
Arg Asp Cys Gly Gly Gln Gly Glu Gly Cys Tyr Thr Gln Pro Cys Cys
           50
cct ggt ctg cgg tgc cgt ggc ggt act gga gga ggc gta tgc cag
                                                                   240
Pro Gly Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Val Cys Gln
        65
                           70
                                              75
                                                                   293
ctg tagtaatagt ttggcatctg atatttcccc tctgtgctcc accctctttt
Leu
gcctgattca tccttaccta tgtgtggtca tgaaccactc agtagctaca cctctggtgg
                                                                   353
404
<210> 255
      79
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Ala Val Arg Leu Gly Asp Glu Met Arg Asn Phe Lys Gly Ala Arg Asp
                            40
Cys Gly Gly Gln Gly Glu Cly Cys Tyr Thr Gln Pro Cys Cys Pro Gly
Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Gly Val Cys Gln Leu
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      Xaa at residue 7 is Glu or gamma-carboxy-Glu; Xaa at residues 13
       and 16 is Pro or hydroxy-Pro; Xaa at residue 10 is Tyr, 125I-Tyr,
       mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Gly Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Val Cys Gln Leu
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      257
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      285
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      DNA
<213> Conus radiatus
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   Met Gln Lys Leu Thr Ile Leu Leu Val Ala Ala Ile Leu Met
   1
teg ace cag gte etg att caa ggt ggt gga gaa aaa ege caa aaa gte
                                                                      96
Ser Thr Gln Val Leu Ile Gln Gly Gly Glu Lys Arg Gln Lys Val
                20
aac att ttt tca aaa aga aag aca gat gct gag acc tgg tgg gag ggc
                                                                     144
Asn Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly
            35
gaa tgc tct aat tgg tta gga agt tgt tcg acg ccc tca aat tgc tgt
                                                                     192
Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys
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ctc aag agt tgt aat ggg cac tgc aca ttg tgg tgatgaactc tgaccacaaa
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Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp
gccatccaac atcaccgctc tcctcttcag agtcttcaag
                                                                    285
<210> 258
<211> 74
<212> PRT
<213> Conus radiatus
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                                    10
Thr Gln Val Leu Ile Gln Gly Gly Glu Lys Arg Gln Lys Val Asn
                                25
            20
Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly Glu
                            40
Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys Leu
                        55
Lys Ser Cys Asn Gly His Cys Thr Leu Trp
                    70
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      31
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<221> PEPTIDE
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<223> Xaa at residues 3 and is Glu or gamma-carboxy-Glu; Xaa at residue
       16 is Pro or hydroxy-Pro; Xaa at residues 1, 2, 9 and 31 is Trp
       (D or L) or bromo-Trp (D or L)
<400> 259
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                                    10
Ser Asn Cys Cys Leu Lys Ser Cys Asn Gly His Cys Thr Leu Xaa
           20
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                                                                     48
Ile Met Gln Lys Leu Ile Ile Leu Leu Val Ala Ala Val Leu Met
                5
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tcc acc cag gcc ctg att caa ggt ggt gga gga aaa cgc caa cag gca
                                                                      96
Ser Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala
aag agc aag tat ttt tcc gaa aga aag gca cct gct aag cgt tgg ttt
                                                                     144
Lys Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe
                            40
        35
                                                                     192
qqa cac qaa qaa tgc act tat tgg ttg ggg cct tgt gag gtg gac gac
Gly His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp
                        55
    50
                                                                     237
acg tgt tgt tct gcc agt tgt gag tcc aag ttc tgc ggg ttg tgg
Thr Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
                    70
                                                                     296
tgatggacac tgaccacaag tcatcctaca tcgccactct cctgttcaga gtcttcaag
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      PRT
<213> Conus radiatus
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Ile Met Gln Lys Leu Ile Ile Leu Leu Leu Val Ala Ala Val Leu Met
Ser Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala
            20
Lys Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe
                            40
Gly His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp
    50
Thr Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
                    70
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<213> Conus radiatus
<220>
      PEPTIDE
<221>
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      Xaa a't residues 5, 6, 15 adn 26 is Glu or gamma-carboxy-Glu; Xaa
<223>
       at residue 13 is Pro or hydroxy-Pro; Xaa at residues 1, 10 and 33
       is Trp (D or L) or bromo-Trp (D or L);
<220>
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<222>
      (1)..(33)
<223> Xaa at residue 9 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-
       sulpho-Tyr or O-phospho-Tyr
<400> 262
Xaa Phe Gly His Xaa Xaa Cys Thr Xaa Xaa Leu Gly Xaa Cys Xaa Val
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1	5	10	15
Asp Asp Thr Cys	Cys Ser Ala Ser Cys 25	Xaa Ser Lys Phe Cys 30	Gly Leu
Xaa			
<210> 263 <211> 306 <212> DNA <213> Conus wi	ttigi		
<220> <221> CDS <222> (7)(23	1)		
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	ctc att acg gct gat Leu Ile Thr Ala Asp 20		
	cgg ttt cta gac aga Arg Phe Leu Asp Arg 35		
	cgt tta ggt gaa cca Arg Leu Gly Glu Pro 55		
	gaa agc gga aca ccc Glu Ser Gly Thr Pro 70		ttgtctg 241
gcatctgata tttc	ccctct gtgccctacc ctc	cttttgcc tgagtcatcc a	atacctgtgc 301
tcgag			306
<210> 264 <211> 75 <212> PRT <213> Conus wi	ttigi		
<400> 264 Met Lys Leu Thr 1	Cys Val Val Ile Ile 5	Ala Leu Leu Phe Leu 10	Thr Ala
Cys Gln Leu Ile 20	Thr Ala Asp Tyr Ser 25	Arg Asp Glu Gln Ser 30	Gly Ser
Thr Val Arg Phe 35	Leu Asp Arg Pro Arg 40	Arg Phe Gly Ser Phe 45	Ile Pro
Cys Ala Arg Leu 50	Gly Glu Pro Cys Thr 55	Ile Cys Cys Arg Pro 60	Leu Arg
Cys Arg Glu Ser	Gly Thr Pro Thr Cys	Gln Val	

65 70 75 <210> 265 <211> 33 <212> PRT <213> Conus wittigi <220> <221> PEPTIDE <222> (1)..(33)<223> Xaa at residues 12 and 25 is Glu or gamma-carboxy-Glu; Xaa at res idues 6, 13, 20 and 29 is Pro or hydroxy-Pro <400> 265 Phe Gly Ser Phe Ile Xaa Cys Ala Arg Leu Gly Xaa Xaa Cys Thr Ile Cys Cys Arg Xaa Leu Arg Cys Arg Xaa Ser Gly Thr Xaa Thr Cys Gln 25 Val <210> 266 <211> 381 <212> DNA <213> Conus regius <220> <221> CDS <222> (7)..(240) <400> 266 48 ggatcc atg aaa ctg acg tgc gtg gtg atc atg gcc tcg ctg ttc ctg Met Lys Leu Thr Cys Val Val Ile Met Ala Ser Leu Phe Leu gcg gcc tgt caa ttc ctt aca gct gga ggt gac tca aga agt aag cag 96 Ala Ala Cys Gln Phe Leu Thr Ala Gly Gly Asp Ser Arg Ser Lys Gln cgg tat cct gat tgg agg ctg ggc tac cga aag tcc aag ttg atg gct 144 Arg Tyr Pro Asp Trp Arg Leu Gly Tyr Arg Lys Ser Lys Leu Met Ala aag aag acg tgc ctg gaa cat aac aaa cta tgt tgg tat gat aga gac 192 Lys Lys Thr Cys Leu Glu His Asn Lys Leu Cys Trp Tyr Asp Arg Asp tgc tgc acc ata tat tgt aat gaa aac aaa tgc ggc gtg aaa cct caa 240 Cys Cys Thr Ile Tyr Cys Asn Glu Asn Lys Cys Gly Val Lys Pro Gln 70 300 tgaatgtttc acacacaca acacacaca acacacaca acacacaca acacacacac acacacaca atotggcgtc tgaccattcc coctotgtgc totatcctct tgttcctgag 360 tcatccatac ctgtgctcga g 381 <210> 267 <211> 78

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<212> PRT
<213> Conus regius
<400> 267
Met Lys Leu Thr Cys Val Val Ile Met Ala Ser Leu Phe Leu Ala Ala
                                    10
Cys Gln Phe Leu Thr Ala Gly Gly Asp Ser Arg Ser Lys Gln Arg Tyr
                                25
Pro Asp Trp Arg Leu Gly Tyr Arg Lys Ser Lys Leu Met Ala Lys Lys
Thr Cys Leu Glu His Asn Lys Leu Cys Trp Tyr Asp Arg Asp Cys Cys
Thr Ile Tyr Cys Asn Glu Asn Lys Cys Gly Val Lys Pro Gln
                    70
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      268
<211>
      30
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<220>
<221> PEPTIDE
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      (1)..(30)
<223> Xaa at residues 4 and 22 is Glu or gamma-carboxy-Glu; Xaa at resi
      due 29 is Pro or hydroxy-Pro; Xaa at residue 10 is Trp (D or L) o
      r bromo-Trp (D or L); Xaa at residues 11 and 19 is Tyr, 125I-Tyr,
       mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 268
Thr Cys Leu Xaa His Asn Lys Leu Cys Xaa Xaa Asp Arg Asp Cys Cys
Thr Ile Xaa Cys Asn Xaa Asn Lys Cys Gly Val Lys Xaa Gln
           20
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<211> 285
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                                                                      48
Ile Met Gln Lys Leu Thr Ile Leu Leu Val Ala Ala Ile Leu Met
                                                                      96
teg ace cag gte etg att caa ggt ggt gga gaa aaa ege caa aaa gte
Ser Thr Gln Val Leu Ile Gln Gly Gly Glu Lys Arg Gln Lys Val
aac att ttt tca aaa aga aag aca gat gct gag acc tgg tgg gag ggc
                                                                     144
Asn Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly
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35 40 45 192 gaa tgc tct aat tgg tta gga agt tgt tcg acg ccc tca aat tgc tgt Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys 50 55 ctc aag aqt tqt aat qqq cac tgc aca ttg tgg tgatgaactc tgaccacaaa 245 Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp 70 gccatccaac atcaccgctc tcctcttcag agtcttcaag 285 <210> 270 <211> 75 <212> PRT <213> Conus radiatus <400> 270 Ile Met Gln Lys Leu Thr Ile Leu Leu Leu Val Ala Ala Ile Leu Met 10 Ser Thr Gln Val Leu Ile Gln Gly Gly Glu Lys Arg Gln Lys Val 25 Asn Ile Phe Ser Lys Arg Lys Thr Asp Ala Glu Thr Trp Trp Glu Gly 40 Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro Ser Asn Cys Cys Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp 70 <210> 271 <211> 31 <212> PRT <213> Conus radiatus <220> <221> PEPTIDE <222> (1)..(31) <223> Xaa at residues 3 and 5 is Glu or gamma-carboxy-Glu; Xaa at resid ue 16 is Pro or hydroxy-Pro; Xaa at residues 1,2, 9 and 31 is Trp (D or L) or bromo-Trp (D or L) <400> 271 Xaa Xaa Gly Xaa Cys Ser Asn Xaa Leu Gly Ser Cys Ser Thr Xaa Ser Asn Cys Cys Leu Lys Ser Cys Asn Gly His Cys Thr Leu Xaa 25 <210> 272 <211> 296 <212> DNA <213> Conus radiatus <220> <221> CDS

<222> (4)..(237)

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    Met Gln Lys Leu Ile Ile Leu Leu Val Ala Ala Val Leu Met
                                                                      96
tcc acc cag gcc ctg att caa ggt ggt gga gga aaa cgc caa cag gca
Ser Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala
aag agc aag tat ttt tcc gaa aga aag gca cct gct aag cgt tgg ttt
                                                                     144
Lys Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe
            35
gga cac gaa gaa tgc act tat tgg ttg ggg cct tgt gag gtg gac gac
                                                                     192
Gly His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp
                                                                     237
acg tgt tgt tct gcc agt tgt gag tcc aag ttc tgc ggg ttg tgg
Thr Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
tgatggacac tgaccacaag tcatcctaca tcgccactct cctgttcaga gtcttcaag
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Thr Gln Ala Leu Ile Gln Gly Gly Gly Lys Arg Gln Gln Ala Lys
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Ser Lys Tyr Phe Ser Glu Arg Lys Ala Pro Ala Lys Arg Trp Phe Gly
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His Glu Glu Cys Thr Tyr Trp Leu Gly Pro Cys Glu Val Asp Asp Thr
Cys Cys Ser Ala Ser Cys Glu Ser Lys Phe Cys Gly Leu Trp
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      33
      PRT
<212>
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<220>
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      Xaa at residues 5, 6, 15 and 26 is Glu or gamma-carboxy-Glu; Xaa
       at residue 13 is Pro or hydroxy-Pro; Xaa at residues 1, 10 and 33
        is Trp (D or L) or bromo-Trp (D or L);
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<222> (1)..(33)
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25

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Asn Ile His Cys Cys Thr Lys Tyr Gln Pro Cys Cys Ser Ser Pro Ser
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       is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-
       phospho-Tyr
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Gly Asn Ile His Cys Cys Thr Lys Xaa Gln Xaa Cys Cys Ser Ser Xaa
Ser
<210> 278
<211>
      206
<212>
      DNA
<213> Conus nobilis
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<221>
      CDS
<222>
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                                                                      48
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                                    10
                                                                      96
qca cca age gtt gat gcc cga ccg aag acc aaa gat gat gtg ctc cgg
Ala Pro Ser Val Asp Ala Arg Pro Lys Thr Lys Asp Asp Val Leu Arg
            20
                                25
                                                    30
gca tct ttc cgc gat aat gca aag agt acc cta caa aga ctt tgg aac
                                                                     144
Ala Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Trp Asn
        35
aaa cgc atc tgc tgc ccc ata att ctt tgg tgc tgt ggt taaccagcat
                                                                     193
Lys Arg Ile Cys Cys Pro Ile Ile Leu Trp Cys Cys Gly
    50
                                                                     206
gaagttccca gga
<210> 279
<211> 61
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<213> Conus nobilis
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Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
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Ala Pro Ser Val Asp Ala Arg Pro Lys Thr Lys Asp Asp Val Leu Arg
                                25
Ala Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Trp Asn
Lys Arg Ile Cys Cys Pro Ile Ile Leu Trp Cys Cys Gly
<210> 280
<211> 10
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       D or L) or bromo-Trp (D or L)
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Ile Cys Cys Xaa Ile Ile Leu Xaa Cys Cys
<210> 281
<211> 205
<212> DNA
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      (1)..(205)
<223> n is unknown
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                5
qca cct acc gtt gat gcc cga cca aag atc gaa gat gat gag tcc ctg
                                                                      96
Ala Pro Thr Val Asp Ala Arg Pro Lys Ile Glu Asp Asp Glu Ser Leu
            20
gca tct ttc cat gnt cat naa cca cca tna nng ntn can ctt ttg aac
                                                                     144
Ala Ser Phe His Xaa His Xaa Pro Pro Xaa Xaa Xaa Thr Leu Leu Asn
aaa cgc aat tgc tgc cca gac tct cct ccg tgc tgt cat taaccagcat
                                                                     193
Lys Arg Asn Cys Cys Pro Asp Ser Pro Pro Cys Cys His
                        55
                                                                     205
gaaggttcag ga
<210> 282
<211> 61
<212> PRT
<213> Conus betulinus
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      misc feature
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      Xaa is unknown
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Ala Pro Thr Val Asp Ala Arg Pro Lys Ile Glu Asp Asp Glu Ser Leu
Ala Ser Phe His Xaa His Xaa Pro Pro Xaa Xaa Xaa Thr Leu Leu Asn
                            40
Lys Arg Asn Cys Cys Pro Asp Ser Pro Pro Cys Cys His
                        55
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       11
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       PRT
<213> Conus betulinus
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<221>
       PEPTIDE
<222>
       (1)..(11)
      Xaa at residues 4, 7 and 8 is Pro or hydroxy-Pro
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Asn Cys Cys Xaa Asp Ser Xaa Xaa Cys Cys His
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      284
<211>
      569
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      DNA
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      Conus purpurascens
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      284
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tctatgacat ttcagttgtt agatcatcca gttccacaga tggaaagaca gagagatagt
                                                                      120
agcttgcaag tggcagcgtg ttgttaacga ccattcgaca ttccatgaac acgtgtgaaa
                                                                      180
ggagcagtct gctttccaaa tctgacatcc agggacagtt tgcaggggtc tcatccaaag
                                                                      240
tcatcttcct ttatcccaaa gtacagcacc gcatctgttt tggacagcaa ccgcgtttct
                                                                      300
tccaaaatct ttgtagggtt ccttttgcat tatcgtggaa agatgccagg ggcatatcat
                                                                      360
ctttggtctt cggatgagca tcaacgcaag gtgcagatgg aatcagcagc agaagaatga
                                                                      420
cqaaqactqq caqacaqcqc attctqcttq taqtcaqctt ccqaattcca aqccqaattc
                                                                      480
tgcagatate cateacactg gcggccgctc gagcatgcat ctagagggcc caattcgccc
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tatagtgagt cgtatgacaa ttcactggc
                                                                      569
<210>
      285
<211> 63
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<213> Conus purpurascens
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            20
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Ala Ser Phe His Asp Asn Ala Lys Gly Thr Leu Gln Arg Phe Trp Lys
Lys Arg Gly Cys Cys Pro Lys Gln Met Arg Cys Cys Thr Leu Gly
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                                            60
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<212> PRT
<213> Conus purpurascens
<220>
<221> PEPTIDE
<222>
      (1)..(12)
<223> Xaa at residue 4 is Pro or hydroxy-Pro
<400> 286
Gly Cys Cys Xaa Lys Gln Met Arg Cys Cys Thr Leu
<210> 287
<211> 221
<212> DNA
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                      Met His Cys Leu Pro Val Val Ile Leu Leu
ctg ctg act gca tct ggt gga cct agc gtt gat gcc cga ctg aag acc
                                                                     101
Leu Leu Thr Ala Ser Gly Gly Pro Ser Val Asp Ala Arg Leu Lys Thr
aaa gat gat gtg ccc ctg tca tct ttc cgc gat aat aca aag agt atc
                                                                     149
Lys Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Thr Lys Ser Ile
cta caa aga ctt tgg aag cga ggc aac tgc tgt gaa ttt tgg gag ttt
                                                                     197
Leu Gln Arg Leu Trp Lys Arg Gly Asn Cys Cys Glu Phe Trp Glu Phe
tgc tgt gat taaccagcat gaagg
                                                                     221
Cys Cys Asp
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<210> 288
<211> 62
<212> PRT
<213> Conus ammiralis
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Gly Gly Pro Ser Val Asp Ala Arg Leu Lys Thr Lys Asp Asp Val Pro
                                25
Leu Ser Ser Phe Arg Asp Asn Thr Lys Ser Ile Leu Gln Arg Leu Trp
Lys Arg Gly Asn Cys Cys Glu Phe Trp Glu Phe Cys Cys Asp
                        55
<210> 289
<211> 12
<212> PRT
<213> Conus ammiralis
<220>
<221>
      PEPTIDE
<222>
      (1)..(12)
      Xaa at residues 5 and 8 is Glu or gamma-carboxy-Glu; Xaa at resid
<223>
       ue 7 is Trp (D or L) or bromo-Trp (D or L)
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Gly Asn Cys Cys Xaa Phe Xaa Xaa Phe Cys Cys Asp
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<210> 290
<211> 209
<212> DNA
<213> Conus dalli
<220>
<221>
      CDS
<222>
      (21)..(194)
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                      Met His Cys Leu Pro Val Phe Val Ile Leu Leu
ctg ctg act gca tct gga cct agc gtt gat gcc caa ccg aag acc gaa
                                                                     101
Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Gln Pro Lys Thr Glu
            15
                                                                     149
gtt gat gtg ccc ctg tca tct ttc cgc gat aat gca aag cgt gcc cta
Val Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Arg Ala Leu
        30
                            35
caa aga ctt ccg cgt tgc tgt gaa tat tgg aag ttg tgc tgt ggt
                                                                     194
Gln Arg Leu Pro Arg Cys Cys Glu Tyr Trp Lys Leu Cys Cys Gly
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    45
                                                                     209
taaccagcat gaagg
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<212> PRT
<213> Conus dalli
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Gly Pro Ser Val Asp Ala Gln Pro Lys Thr Glu Val Asp Val Pro Leu
                                25
Ser Ser Phe Arg Asp Asn Ala Lys Arg Ala Leu Gln Arg Leu Pro Arg
Cys Cys Glu Tyr Trp Lys Leu Cys Cys Gly
<210> 292
<211> 9
<212> PRT
<213> Conus dalli
<220>
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       Trp (D or L) or bromo-Trp (D or L); Xaa at residue 4 is Tyr, 125
       I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 292
Cys Cys Xaa Xaa Xaa Lys Leu Cys Cys
<210> 293
<211> 218
<212> DNA
<213> Conus omaria
<220>
<221> CDS
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                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
ctg cta act gca tct gca cct agc gtt gat gcc cga ccg aag gcc aaa
                                                                      101
Leu Leu Thr Ala Ser Ala Pro Ser Val Asp Ala Arg Pro Lys Ala Lys
                                20
gat gat gtg ccc ctg gca tct ttc cgt gat aat gca aag agt acc cta
                                                                      149
Asp Asp Val Pro Leu Ala Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
                            35
caa aga ctt cag gac aaa cgc gtt tgc tgt ggc tat aag ttt ttt tgc
                                                                      197
Gln Arg Leu Gln Asp Lys Arg Val Cys Cys Gly Tyr Lys Phe Phe Cys
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tgt cgt taaccagcat gaagg
                                                                      218
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Cvs Ara
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Ala Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp
Lys Arg Val Cys Cys Gly Tyr Lys Phe Phe Cys Cys Arg
<210> 295
<211> 11
<212> PRT
<213> Conus omaria
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<221> PEPTIDE
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       sulpho-Tyr or O-phospho-Tyr
<400> 295
Val Cys Cys Gly Xaa Lys Phe Phe Cys Cys Arg
<210> 296
<211> 212
<212> DNA
<213> Conus aulicus
<220>
<221> CDS
<222> (21)..(197)
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                                                                      53
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                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
ctq ctq act qca tct qca cct aac gtt gat gcc caa ccg aag acc aaa
                                                                     101
Leu Leu Thr Ala Ser Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys
gat gat gtg ccc ctg gca tct ttg cac gat gat gca aag agt gca cta
                                                                     149
Asp Asp Val Pro Leu Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu
                                                                     197
caa cat tgg aac caa cgc tgc tgc ccc atg atc tat tgg tgc tgt agt
Gln His Trp Asn Gln Arg Cys Cys Pro Met Ile Tyr Trp Cys Cys Ser
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55

50

45

212 taaccagcat gaagg <210> 297 <211> 59 <212> PRT <213> Conus aulicus <400> 297 Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys Asp Asp Val Pro Leu 25 Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu Gln His Trp Asn Gln Arg Cys Cys Pro Met Ile Tyr Trp Cys Cys Ser <210> 298 <211> 10 <212> PRT <213> Conus aulicus <220> <221> PEPTIDE <222> (1)..(10)<223> Xaa at residue 3 is Pro or hydroxy-Pro; Xaa at residue 7 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 6 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 298 Cys Cys Xaa Met Ile Xaa Xaa Cys Cys Ser <210> 299 <211> 212 <212> DNA <213> Conus aulicus <220> <221> CDS <222> (21)..(197) <400> 299 53 ggaagetgae tacaageaga atg cae tgt etc eca gte tte gte att ett etg Met His Cys Leu Pro Val Phe Val Ile Leu Leu 101 ctg ctg act gca tct gca cct aac gtt gat gcc caa ccg aag acc aaa Leu Leu Thr Ala Ser Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys 20 gat gat gtg ccc ctg gca tct ttg cac gat gat gca aag agt gca cta 149 Asp Asp Val Pro Leu Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu 40 30 35

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caa cat tgg aac caa cgc tgc tgc ccc gag atc tat tgg tgc tgt agt
                                                                      197
Gln His Trp Asn Gln Arg Cys Cys Pro Glu Ile Tyr Trp Cys Cys Ser
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                                                                      212
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       300
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Ala Pro Asn Val Asp Ala Gln Pro Lys Thr Lys Asp Asp Val Pro Leu
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Ala Ser Leu His Asp Asp Ala Lys Ser Ala Leu Gln His Trp Asn Gln
                            40
Arg Cys Cys Pro Glu Ile Tyr Trp Cys Cys Ser
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       10
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<213> Conus aulicus
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<223>
      Xaa at residue 4 is Glu or gamma-carboxy-Glu; Xaa at residue 3 is
       Pro or hydroxy-Pro; Xaa at residue 7 is Trp (D or L) or bromo-Tr
       p (D or L); Xaa at residue 6 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-
       iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 301
Cys Cys Xaa Xaa Ile Xaa Xaa Cys Cys Ser
                5
<210>
       302
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       215
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      DNA
<213> Conus ammiralis
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       CDS
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       (21)..(200)
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                                                                       53
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
                                       5
                                                           10
ctq ctq att qca tct qca cct aqc qtt qat qcc caa ccq aaq acc aaa
                                                                      101
Leu Leu Ile Ala Ser Ala Pro Ser Val Asp Ala Gln Pro Lys Thr Lys
            15
                                                     25
gat gat gtg tcc ctg gca tct ttg cac gat aat ata aag agt act cta
                                                                      149
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Asp Asp Val Ser Leu Ala Ser Leu His Asp Asn Ile Lys Ser Thr Leu
                            35
caa aca ctt tqq aac aaa cqc tqc tqc ccc cct qtg att tqq tqc tqt
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Gln Thr Leu Trp Asn Lys Arg Cys Cys Pro Pro Val Ile Trp Cys Cys
                        50
ggt taaccagcat aaagg
                                                                     215
Gly
60
<210> 303
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      60
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<213> Conus ammiralis
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Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Ile Ala Ser
Ala Pro Ser Val Asp Ala Gln Pro Lys Thr Lys Asp Asp Val Ser Leu
            20
Ala Ser Leu His Asp Asn Ile Lys Ser Thr Leu Gln Thr Leu Trp Asn
                            40
Lys Arg Cys Cys Pro Pro Val Ile Trp Cys Cys Gly
                        55
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<213> Conus ammiralis
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      (1)..(9)
<223> Xaa at residues 3 and 4 is Pro or hydroxy-Pro; Xaa at residue 7 i
       s Trp (D or L) or bromo-Trp (D or L)
<400> 304
Cys Cys Xaa Xaa Val Ile Xaa Cys Cys
<210>
      305
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      215
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<222> (21)..(200)
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ggaagetgae tacaageaga atg ege tgt etc eca gte tte gte att ett etg
                                                                      53
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
ctg ctg act gca tct gga cct agc gtt gat gcc cga ccg aag acc aaa
                                                                     101
Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Lys
            15
                                20
                                                    25
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gat gat gtg cct ctg tca tct ttc cgc gat aac gca aag agt atc cta
                                                                      149
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Ile Leu
                            35
                                                                      197
caa aga cgt tgg aac aac tat tgc tgc acg aat gag ctt tgg tgc tgt
Gln Arg Arg Trp Asn Asn Tyr Cys Cys Thr Asn Glu Leu Trp Cys Cys
                                            55
                        50
                                                                      215
ggt taaccagcat gaagg
Gly
60
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      306
<211>
      60
<212>
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<213> Conus aulicus
<400> 306
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Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Lys Asp Asp Val Pro Leu
            20
Ser Ser Phe Arg Asp Asn Ala Lys Ser Ile Leu Gln Arg Arg Trp Asn
                            40
Asn Tyr Cys Cys Thr Asn Glu Leu Trp Cys Cys Gly
                        55
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      307
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      13
<212>
      PRT
<213> Conus aulicus
<220>
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<222>
      (1)..(13)
<223> Xaa at residue 9 is Glu or gamma-carboxy-Glu; Xaa at residues 1 a
       nd 11 is Trp (D or L) or bromo-Trp (D or L); Xaa at residue 4 is
       Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phos
       pho-Tyr
<400> 307
Xaa Asn Asn Xaa Cys Cys Thr Asn Xaa Leu Xaa Cys Cys
<210>
      308
<211>
      218
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<213> Conus dalli
<220>
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      CDS
      (21)..(203)
<222>
<400> 308
ggaagctgac tacaagcaga atg cac tgt ctc cca gtc ttc gtc att ctt ctg
                      Met His Cys Leu Pro Val Phe Val Ile Leu Leu
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1 5 10 ctg ctg act gca tct gga cct agc gtt gat gcc cga ccg aag acc gaa 101 Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Glu gat gat gtg ccc ctg tca tct ttc cgc gat aat aca aag agt acc cta 149 Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Thr Lys Ser Thr Leu 30 35 caa aga ctt ttg aag cca gtc aac tgc tgt cct att gat caa tct tgc 197 Gln Arg Leu Leu Lys Pro Val Asn Cys Cys Pro Ile Asp Gln Ser Cys 45 218 tgt tct taaccagcat gaagg Cys Ser 60 <210> 309 <211> 61 <212> PRT <213> Conus dalli Met His Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Pro Lys Thr Glu Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Thr Lys Ser Thr Leu Gln Arg Leu Lys Pro Val Asn Cys Cys Pro Ile Asp Gln Ser Cys Cys Ser 55 <210> 310 <211> 13 <212> PRT <213> Conus dalli <220> <221> PEPTIDE (1)..(13)<223> Xaa at residues 1 and 6 is Pro or hydroxy-Pro <400> 310 Xaa Val Asn Cys Cys Xaa Ile Asp Gln Ser Cys Cys Ser <210> 311 <211> 239 <212> DNA <213> Conus consors <220> <221> CDS <222> (7)..(228)

<400> 311

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gtt tcc atc cct tca gat cgt gca tct gaa ggc agg aat gcc gta gtc Val Ser Ile Pro Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Val Val 15 20 25 30	96									
cac gag aga gcg cct gag ctg gtc gtt acg gcc acc acg act tgc tgt His Glu Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys 35 40 45	144									
ggt tat gat ccg atg aca ata tgc cct cct tgc atg tgc act cat tcc Gly Tyr Asp Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser 50 55 60	192									
tgt cca cca aaa aga aaa cca ggc cgc aga aac gac tgatgctcga g Cys Pro Pro Lys Arg Lys Pro Gly Arg Arg Asn Asp 65 70	239									
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Ile Pro Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Val Val His Glu 20 25 30										
Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr 35 40 45										
Asp Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser Cys Pro 50 55 60										
Pro Lys Arg Lys Pro Gly Arg Arg Asn Asp 65 70										
<210> 313 <211> 36 <212> PRT <213> Conus consors										
<pre><220> <221> PEPTIDE <222> (1)(36) <223> Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residues 2,</pre>										
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Xaa Met Thr Ile Cys Xaa Xaa Cys Met Cys Thr His Ser Cys Xaa Xaa 20 25 30										

Lys Ar	g Lys 35	Xaa													
<210> <211> <212> <213>	314 272 DNA Conu	s au:	risi	acus											
<220> <221> <222>	CDS (7).	. (23	7)												
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gtt tcc Val Ser 15				-	_			_					-		96
aac gaq Asn Glu															144
gga tat Gly Tyr															192
tgt aaa Cys Lys										-	_				237
tgatgct	cca (ggac	cctct	g aa	accad	cgac	c to	gag							272
<210><211><211><212><213>	315 77 PRT Conus	s au	risia	acus											
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Ile Pro	Ser	Asp 20	Arg	Ala	Ser	Asp	Gly 25	Arg	Asn	Ala	Ala	Val 30	Asn	Glu	
Arg Glr	n Ser 35	Trp	Leu	Val	Pro	Ser 40	Thr	Ile	Thr	Thr	Cys 45	Суѕ	Gly	Tyr	
Asp Pro	o Gly	Thr	Met	Суѕ	Pro 55	Pro	Cys	Arg	Cys	Asn 60	Asn	Thr	Cys	Lys	
Pro Lys	s Lys	Pro	Lys	Pro 70	Gly	Lys	Gly	Arg	Arg 75	Asn	Asp				
<210> <211> <212>	316 39 PRT														

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<213> Conus aurisiacus
<220>
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<222> (1)..(39)
<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 6, 17, 22, 2
       3, 32, 35 and 37 is Pro or hydroxy-Pro; Xaa at residue 3 is Trp (
       D or L) or bromo-Trp (D or L); Xaa at residue 15 is Tyr, 125I-Tyr
       , mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
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Xaa Ser Xaa Leu Val Xaa Ser Thr Ile Thr Thr Cys Cys Gly Xaa Asp
Xaa Gly Thr Met Cys Xaa Xaa Cys Arg Cys Asn Asn Thr Cys Lys Xaa
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Lys Lys Xaa Lys Xaa Gly Lys
<210> 317
<211> 266
<212> DNA
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      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc atc cct tca gat cgt gca tct gat ggc agg aat gcc gta gtc
                                                                      96
Val Ser Ile Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Val Val
                    20
                                                                     144
cac gag aga gcg cct gag ctg gtc gtt acg gcc acc acg act tgc tgt
His Glu Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Cys Cys
                                    40
ggt tat gat ccg atg aca tgg tgc cct tct tgc atg tgc act tat tcc
                                                                     192
Gly Tyr Asp Pro Met Thr Trp Cys Pro Ser Cys Met Cys Thr Tyr Ser
tgt ccc cac caa agg aaa aaa cca ggc cgc aga aac gac tgatgctcca
                                                                     241
Cys Pro His Gln Arg Lys Lys Pro Gly Arg Arg Asn Asp
                                                                     266
ggaccctctg aaccacgacc tcgag
<210> 318
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      75
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<213> Conus consors
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Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                                        15
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Ile Pro Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Val Val His Glu
                                25
            20
Arg Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr
Asp Pro Met Thr Trp Cys Pro Ser Cys Met Cys Thr Tyr Ser Cys Pro
His Gln Arg Lys Lys Pro Gly Arg Arg Asn Asp
<210>
       319
<211> 37
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<213> Conus consors
<220>
<221> PEPTIDE
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      (1)..(37)
<223> Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residues 2,
       17, 22, 31 and 37 is Pro or hydroxy-Pro; Xaa at residue 20 is Trp
       (D or L) or bromo-Trp (D or L);
<220>
<221> PEPTIDE
<222>
      (1)..(37)
<223> Xaa at residues 15 and 28 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iod
       o-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 319
Ala Xaa Xaa Leu Val Val Thr Ala Thr Thr Cys Cys Gly Xaa Asp
                                    10
Xaa Met Thr Xaa Cys Xaa Ser Cys Met Cys Thr Xaa Ser Cys Xaa His
                                25
Gln Arg Lys Lys Xaa
        35
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      320
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<213> Conus magus
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      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Ser Val
                                           10
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gtt tcc a Val Ser I 15														96
cac gag a His Glu A				_	_	_	_	_		_		_	_	144
ggt tat g Gly Tyr A	_	_			_			-	_	-				192
tgt cca c Cys Pro P 6	ro Lys					_			_	tga	tgt	ccag	gac	241
ctctgaacc	a cgac	ncga	g											260
<210> 32 <211> 74 <212> PR <213> Co		gus												
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Ile Pro S	er Asp 20	Arg	Ala	Ser	Asp	Gly 25	Gly	Asn	Ala	Val	Val 30	His	Glu	
Arg Ala P		Leu	Val	Val	Thr 40	Ala	Thr	Thr	Thr	Cys 45	Суѕ	Gly	Tyr	
Asp Pro M 50	et Thr	Ile	Cys	Pro 55	Pro	Суѕ	Met	Cys	Thr 60	His	Ser	Cys	Pro	
Pro Lys G 65	ly Lys	Pro	Gly 70	Arg	Arg	Asn	Asp							
<210> 32 <211> 36 <212> PR <213> Co		gus				·								
<pre><220> <221> PEPTIDE <222> (1)(36) <223> Xaa at residue 3 is Glu or gamma-carboxy-Glu; Xaa at residues 2,</pre>														
<400> 32 Ala Xaa X 1		Val 5	Val	Thr	Ala	Thr	Thr 10	Thr	Суѕ	Cys	Gly	Xaa 15	Asp	
Xaa Met T	nr Ile 20	Cys	Xaa	Xaa	Cys	Met 25	Cys	Thr	His	Ser	Cys 30	Xaa	Xaa	

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Lys Gly Lys Xaa
        35
<210> 323
<211> 251
<212> DNA
<213> Conus aurisiacus
<220>
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<222>
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                                                                      52
                         Val Val Leu Gly Pro Glu Pro Asp Gly Arg
aat gcc gca gtc aac gag aga cag aaa tgg ctg gtc cat tcg aaa atc
                                                                     100
Asn Ala Ala Val Asn Glu Arg Gln Lys Trp Leu Val His Ser Lys Ile
                15
                                    20
acg tat tgc tgt ggt tat aat aag atg gac atg tgc cct cct tgc atg
                                                                     148
Thr Tyr Cys Cys Gly Tyr Asn Lys Met Asp Met Cys Pro Pro Cys Met
            30
                                35
tgc act tat tcc tgt ccc ccc cta aaa aaa aga cca ggc cgc aga
                                                                     196
Cys Thr Tyr Ser Cys Pro Pro Leu Lys Lys Lys Arg Pro Gly Arg Arg
                            50
aac gac tgatgctcca ggaccctctg aaccacgacc tcgagcgaag ggcgaattc
                                                                     251
Asn Asp
    60
<210> 324
<211> 60
<212>
      PRT
<213> Conus aurisiacus
<400> 324
Val Val Leu Gly Pro Glu Pro Asp Gly Arg Asn Ala Ala Val Asn Glu
Arg Gln Lys Trp Leu Val His Ser Lys Ile Thr Tyr Cys Cys Gly Tyr
            20
Asn Lys Met Asp Met Cys Pro Pro Cys Met Cys Thr Tyr Ser Cys Pro
Pro Leu Lys Lys Lys Arg Pro Gly Arg Arg Asn Asp
    50
<210> 325
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      38
<212> PRT
<213> Conus aurisiacus
<220>
<221> PEPTIDE
<222>
      (1)..(38)
<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 22, 23, 31,
```

32 and 38 is Pro or hydroxy-Pro; Xaa at residue 3 is Trp (D or L) or bromo-Trp (D or L); Xaa at residues 11, 15 and 28 is Tyr, 12 5I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

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<400> 325
Xaa Lys Xaa Leu Val His Ser Lys Ile Thr Xaa Cys Cys Gly Xaa Asn
Lys Met Asp Met Cys Xaa Xaa Cys Met Cys Thr Xaa Ser Cys Xaa Xaa
                                25
           20
Leu Lys Lys Lys Arg Xaa
        35
<210>
      326
      212
<211>
<212>
      DNA
<213> Conus aurisiacus
<220>
<221> CDS
<222>
      (23)..(163)
<400> 326
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gaattegeee ttgaggatee gt gtg gtt etg ggt eea gea ttt gat gge agg
                         Val Val Leu Gly Pro Ala Phe Asp Gly Arg
                                                                      100
aat gcc gca gtc aac gag aga gcg cct tgg acg gtc gtt acg gcc acc
Asn Ala Ala Val Asn Glu Arg Ala Pro Trp Thr Val Val Thr Ala Thr
acg aat tgc tgc ggt att acc ggg cca ggc tgc ctt cct tgc cgt tgt
                                                                      148
Thr Asn Cys Cys Gly Ile Thr Gly Pro Gly Cys Leu Pro Cys Arg Cys
                                                                      203
act caa aca tgt ggc tgatgctcca ggaccctctg aaccacgacc tcgagcgaag
Thr Gln Thr Cys Gly
        45
                                                                      212
ggcgaattc
<210> 327
<211>
      47
<212> PRT
<213> Conus aurisiacus
Val Val Leu Gly Pro Ala Phe Asp Gly Arg Asn Ala Ala Val Asn Glu
Arg Ala Pro Trp Thr Val Val Thr Ala Thr Thr Asn Cys Cys Gly Ile
Thr Gly Pro Gly Cys Leu Pro Cys Arg Cys Thr Gln Thr Cys Gly
                            40
<210>
       328
<211>
       29
<212> PRT
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<213> Conus aurisiacus
<220>
<221> PEPTIDE
<222>
      (1)..(29)
<223> Xaa at residues 2, 18 and 22 is Pro or hydroxy-Pro; Xaa at residu
       e 3 is Trp (D or L) or bromo-Trp (D or L)
<400> 328
Ala Xaa Xaa Thr Val Val Thr Ala Thr Thr Asn Cys Cys Gly Ile Thr
                                    10
Gly Xaa Gly Cys Leu Xaa Cys Arg Cys Thr Gln Thr Cys
            20
      329
<210>
      218
<211>
<212>
      DNA
<213> Conus marmoreus
<220>
<221> CDS
<222> (21)..(203)
<400> 329
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                                                                     53
                     Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu
                                                                     101
ctg ctg act gca tct gca cct ggc gtt gtt gtc cta ccg aag acc gaa
Leu Leu Thr Ala Ser Ala Pro Gly Val Val Leu Pro Lys Thr Glu
           15
                                                                     149
gat gat gtg ccc atg tca tct gtc tac ggt aat gga aag agt atc cta
Asp Asp Val Pro Met Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile Leu
                            35
       30
cga ggg att ctg agg aac ggt gtt tgc tgt ggc tat aag ttg tgc ctt
                                                                     197
Arg Gly Ile Leu Arg Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Leu
   45
                        50
                                                                     218
cca tgt taaccagcat gaagg
Pro Cys
60
<210> 330
<211> 61
<212> PRT
<213> Conus marmoreus
<400> 330
Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu Leu Thr Ala Ser
Ala Pro Gly Val Val Leu Pro Lys Thr Glu Asp Asp Val Pro Met
Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile Leu Arg Gly Ile Leu Arg
                            40
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<210> 331
<211> 13
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222>
      (1)..(13)
<223> Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 7 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 331
Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys Leu Xaa Cys
<210> 332
<211> 238
<212> DNA
<213> Conus pennaceus
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      CDS
<222> (28)..(219)
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                              Met Arg Cys Leu Pro Val Phe Val Ile
ctt ctg ctg ctg act gca tct gca cct agc gtt gat gcc aaa gtt cat
                                                                     102
Leu Leu Leu Thr Ala Ser Ala Pro Ser Val Asp Ala Lys Val His
10
                    15
                                                                     150
ctg aag acc aaa ggt gat ggg ccc ctg tca tct ttc cga gat aat gca
Leu Lys Thr Lys Gly Asp Gly Pro Leu Ser Ser Phe Arg Asp Asn Ala
aag agt acc cta caa aga ctt cag gac aaa agc act tgc tgt ggc ttt
                                                                     198
Lys Ser Thr Leu Gln Arg Leu Gln Asp Lys Ser Thr Cys Cys Gly Phe
            45
aag atg tgt atc cct tgt agt taaccagcat gaaggatcc
                                                                     238
Lys Met Cys Ile Pro Cys Ser
        60
<210> 333
<211> 64
<212> PRT
<213> Conus pennaceus
<400> 333
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
            20
                                25
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Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
                            40
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Ser
<210> 334
<211> 13
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<213> Conus pennaceus
<220>
<221> PEPTIDE
<222>
      (1)..(13)
<223> Xaa at residue 11 is Pro or hydroxy-Pro
<400> 334
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Xaa Cys Ser
<210> 335
<211> 231
<212> DNA
<213> Conus pennaceus
<220>
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<222> (27)..(212)
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                             Met Arg Cys Leu Pro Val Phe Val Ile
ctt ctg ctg ctg act gca tct gga cct agc gtt gat gcc cga ctg aag
                                                                     101
Leu Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Leu Lys
10
acc aaa gat gat gtg ccc ctg tca tct ttc cga gat aat gca aag agt
                                                                     149
Thr Lys Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser
                30
acc cta caa aga ctt cag gac aaa cgc ctt tgc tgt ggc ttt tgg atg
                                                                     197
Thr Leu Gln Arg Leu Gln Asp Lys Arg Leu Cys Cys Gly Phe Trp Met
            45
                                50
tgt att cct tgt aat taaccagcat gaaggatcc
                                                                     231 .
Cys Ile Pro Cys Asn
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<211> 62
<212> PRT
<213> Conus pennaceus
<400> 336
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
                5.
                                    10
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Gly Pro Ser Val Asp Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu
                                25
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp
Lys Arg Leu Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
<210> 337
<211> 12
<212> PRT
<213> Conus pennaceus
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<222>
      (1)..(12)
<223> Xaa at residue 10 is Pro or hydroxy-Pro; Xaa at residue 6 is Trp
       (D or L) or bromo-Trp (D or L)
<400> 337
Leu Cys Cys Gly Phe Xaa Met Cys Ile Xaa Cys Asn
<210>
      338
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      244
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      DNA
<213> Conus pennaceus
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<222> (40)..(225)
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<223> n is unknown
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                                           Met Arg Cys Leu Pro
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ctc ttc qtc att ctt ctg ctg ctg act gca tct gga cct act gtt gat
Leu Phe Val Ile Leu Leu Leu Thr Ala Ser Gly Pro Thr Val Asp
                                                        20
                10
                                                                     150
qcc cqa ctq aag acc aaa gat gat gtg ccc ctg tca tct ttc cga gat
Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu Ser Ser Phe Arg Asp
            25
                                30
                                                    35
aat qca aaq aqt acc cta caa aga ctt cag gac aaa agc act tgc tgt
                                                                     198
Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp Lys Ser Thr Cys Cys
        40
                            45
                                                50
qqc ttt aaq atq tgt att cct tgt ggt taaccagcat gaaggatcc
                                                                     244
Gly Phe Lys Met Cys Ile Pro Cys Gly
    55
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<210> 339
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       62
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      PRT
<213> Conus pennaceus
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Met Arg Cys Leu Pro Leu Phe Val Ile Leu Leu Leu Leu Thr Ala Ser
Gly Pro Thr Val Asp Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp
Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Gly
<210> 340
<211> 12
<212> PRT
<213> Conus pennaceus
<220>
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<222>
      (1)..(12)
<223> Xaa at residue 11 is Pro or hydroxy-Pro
<400> 340
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Xaa Cys
<210> 341
<211> 250
<212> DNA
<213> Conus episcopatus
<220>
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     misc feature
<222>
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<223> n is unknown
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gtcattcttc tgctgctgac tgcatctgga cctantgttg atgccaaagt tcatctgaag
                                                                     120
accaaaggtg atgggcccct gtcatctttc cgagataatg caaagagtac cctacaaaga
                                                                     180
cttcaggaca aaagcacttg ctgtggctat aggatgtgtg ttccttgtgg ttaaccagca
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                                                                     250
tgaaggatcc
<210> 342
<211> 64
<212> PRT
<213> Conus episcopatus
<400> 342
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                                    10
Gly Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
Gln Asp Lys Ser Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
<210> 343
<211>
      12
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<213> Conus episcopatus
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<222>
      (1)..(12)
<223> Xaa at residue 11 is Pro or hydroxy-Pro; Xaa at residue 6 is Tyr
       , 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho
<400> 343
Ser Thr Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
<210>
      344
<211>
      827
<212>
      DNA
<213> Conus marmoreus
<220>
<221> CDS
<222>
      (82)..(264)
<400> 344
                                                                      60
ggcgaataca cctggcaggt actcaacgaa cttcaggaca cattcttttc acctggacac
                                                                     111
tggaaactga caacaggcag a atg cgc tgt ctc cca gtc ttg atc att ctt
                        Met Arg Cys Leu Pro Val Leu Ile Ile Leu
                                                                     159
ctg ctg act gca tct gca cct ggc gtt gtt gtc cta ccg aag acc
Leu Leu Thr Ala Ser Ala Pro Gly Val Val Leu Pro Lys Thr
gaa gat gat gtg ccc atg tca tct gtc tac ggt aat gga aag agt atc
                                                                     207
Glu Asp Asp Val Pro Met Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile
                                                                     255
cta cga gga att ctg agg aac ggt gtt tgc tgt ggc tat aag ttg tgc
Leu Arg Gly Ile Leu Arg Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys
                            50
                                                                     304
cat cca tgt taaccagcat gaagggaaat gactttggat gagacccctg
His Pro Cys
    60
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364
cgaactgtcc ctggatgtga aatttggaaa gcagactgtt cctttcgcac gtattcgtgg
aatttcgaat ggtcgtaaac aacacgctgc cacttgcagg ctactatctc tctgtccttt
                                                                     424
catctgtgga aatggatgat ctaacaactg aaatatcaga aatttttcaa tggctataca
                                                                     484
ctatqaccat gtagtcagta attatatcat ttggaccttt tgaaatattt ttcaatatgt
                                                                     544
aaagtttttg caccctggaa aggtcttttg gagttaaata ttttagtatg ttatgttttg
                                                                     604
catacaagtt atagaatgct gtctttcttt ttgttcccac atcaatggtg ggggcagaaa
                                                                     664
ttatttgttt tggtcaatgt aattatgacc tgcatttagt gctatagtga ttgcattttc
                                                                     724
agcgtggaat gtttaatctg caaacagaaa gtggttgatc gactaataaa gatttgcatg
                                                                     784
                                                                     827
qcacaaaaaa aaaaaaaaa aqtactctgc gttgttactc gag
<210> 345
<211> 61
<212>
      PRT
<213> Conus marmoreus
<400> 345
Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu Leu Thr Ala Ser
                5
Ala Pro Gly Val Val Leu Pro Lys Thr Glu Asp Asp Val Pro Met
            20
Ser Ser Val Tyr Gly Asn Gly Lys Ser Ile Leu Arg Gly Ile Leu Arg
                            40
Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
<210> 346
<211>
      13
<212>
      PRT
      Conus marmoreus
<213>
<220>
<221>
      PEPTIDE
<222>
      (1)..(13)
      Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 7 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 346
Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
                5
<210>
       347
<211>
      12
<212>
      PRT
<213> Conus marmoreus
<220>
      PEPTIDE
<221>
<222> (1)..(12)
<223> Xaa at residue 11 is Pro or hydroxy-Pro; Xaa at residue 6 is Tyr,
```

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125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 347
Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
<210> 348
<211> 202
<212> DNA
<213> Conus bandanus
<220>
<221>
      CDS
<222>
      (1)..(183)
<400> 348
atq cgc tqt ctc cca qtc ttq atc att ctt ctg ctg ctg act gca tct
                                                                      48
Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu Leu Thr Ala Ser
gca cct ggc gtt gat gtc cta ccg aag acc gaa gat gat gtg ccc ctg
                                                                      96
Ala Pro Gly Val Asp Val Leu Pro Lys Thr Glu Asp Asp Val Pro Leu
            20
tca tct gtc tac gat aat aca aag agt atc cta cga gga ctt ctg gac
                                                                     144
Ser Ser Val Tyr Asp Asn Thr Lys Ser Ile Leu Arg Gly Leu Leu Asp
                            40
                                                45
        35
                                                                     193
aaa cgt gct tgc tgt ggc tac aag ctt tgc tca cca tgt taaccagcat
Lys Arg Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
                        55 .
    50
                                                                     202
gaaggatcc
<210> 349
<211>
      61
<212>
      PRT
<213> Conus bandanus
<400> 349
Met Arg Cys Leu Pro Val Leu Ile Ile Leu Leu Leu Leu Thr Ala Ser
Ala Pro Gly Val Asp Val Leu Pro Lys Thr Glu Asp Asp Val Pro Leu
            20
Ser Ser Val Tyr Asp Asn Thr Lys Ser Ile Leu Arg Gly Leu Leu Asp
Lys Arg Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
<210> 350
<211> 11
<212> PRT
<213> Conus bandanus
<220>
<221> PEPTIDE
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<222> (1)..(11)
<223> Xaa at residue 10 is Pro or hydroxy-Pro; Xaa at residue 5 is Tyr,
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 350
Ala Cys Cys Gly Xaa Lys Leu Cys Ser Xaa Cys
<210>
       351
<211>
      221
<212>
      DNA
<213>
      Conus aulicus
<220>
<221>
      CDS
<222>
      (21)..(206)
<400> 351
ggaagctgac tacaagcaga atg cgc tgt ctc cca gtc ttc gtc att ctt ctg
                                                                      53
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
ctg ctg act gca tct gga cct agc gtt gat gcc cga ctg aag acc aaa
                                                                     101
Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Arg Leu Lys Thr Lys
            15
                                20
gat gat gtg ccc ctg tca tct ttc cga gat aat gca aag agt acc cta
                                                                      149
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
        30
                            35
                                                40
caa aga cat cag gac aaa agc gtt tgc tgt ggc tat aag ctg tgt ttt
                                                                      197
Gln Arg His Gln Asp Lys Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe
                                                                      221
cct tgt ggt taaccagcat gaagg
Pro Cys Gly
60
<210> 352
<211> 62
<212> PRT
<213> Conus aulicus
<400> 352
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Arg Leu Lys Thr Lys Asp Asp Val Pro Leu
            20
                                25
                                                    30
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg His Gln Asp
Lys Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe Pro Cys Gly
                        55
<210> 353
<211> 12
<212> PRT
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<213> Conus aulicus
<220>
<221> PEPTIDE
<222>
      (1)..(12)
<223> Xaa at residue 11 is Pro or hydroxy-Pro; Xaa at residue 6 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
<400> 353
Ser Val Cys Cys Gly Xaa Lys Leu Cys Phe Xaa Cys
<210>
      354
      312
<211>
<212> DNA
<213> Conus textile
<220>
<221> CDS
<222> (3)..(50)
<220>
<221> misc feature
<222>
      (1)..(312)
<223> n is unknown
<400> 354
                                                                      47
ca gga tcc aat ggg gtt tgt tgt ggc tat agg atg tgt gtt cct tgt
  Gly Ser Asn Gly Val Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
ggt taaccagcat gaagggaaat gactttggat gagacccctg cgaactgtcc
                                                                     100
Gly
ctggatgtga gatttggaaa gcagactgtt cattttgcac gtgttcgtgg aatttcgaat
                                                                     160
ggtcgttaac aacacgctgc cacttgcaag ctactatctc tctgtccttt tatctgtgga
                                                                     220
                                                                     280
actgtatgat ctaacaactg aaatatcata nanatttttc aatgggtatn cactatgcat
                                                                     312
atgatcatgt agggttcaag gggtcaagat nc
<210> 355
<211> 16
<212> PRT
<213> Conus textile
<400> 355
Gly Ser Asn Gly Val Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
                                    10
<210>
      356
<211>
      13
<212> PRT
<213> Conus textile
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<220>

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<221> PEPTIDE
<222> (1)..(13)
<223> Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 7 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
<400> 356
Asn Gly Val Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
<210> 357
<211> 205
<212> DNA
<213> Conus textile
<220>
<221> CDS
<222> (1)..(186)
<400> 357
atg cac tgt ctc cca atc ttc gtc att ctt ctg ctg ctg act gca tct
                                                                      48
Met His Cys Leu Pro Ile Phe Val Ile Leu Leu Leu Thr Ala Ser
gga cct agc gtt gat gcc caa ctg aag acc aaa gat gat gtg ccc ctg
                                                                      96
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
tca tct ttc cga gat cat gca aag agt acc cta cga aga ctt cag gac
                                                                     144
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
aaa cag act tgc tgt ggc tat agg atg tgt gtt cct tgt ggt
                                                                     186
Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
taaccagcat gaaggatcc
                                                                     205
<210> 358
<211> 62
<212>
      PRT
<213> Conus textile
<400> 358
Met His Cys Leu Pro Ile Phe Val Ile Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp His Ala Lys Ser Thr Leu Arg Arg Leu Gln Asp
        35
Lys Gln Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys Gly
                        55
<210> 359
<211> 12
<212> PRT
<213> Conus textile
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<220>
<221> PEPTIDE
<222>
      (1)..(12)
<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 11 is Pro or
       hydroxy-Pro; Xaa at residue 6 is Tyr, 125I-Tyr, mono-iodo-Tyr, di
       -iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 359
Xaa Thr Cys Cys Gly Xaa Arg Met Cys Val Xaa Cys
<210>
       360
<211>
       221
<212>
       DNA
<213> Conus ammiralis
<220>
<221>
      CDS
<222>
      (21)..(206)
<400> 360
agaagctgac tacaagcaga atg cac tac ctc cca gtc ttc gtc att ctt ctg
                                                                      53
                      Met His Tyr Leu Pro Val Phe Val Ile Leu Leu
                                                                     101
ctg ctg act gca tct gga cct agc gtt gat gcc caa ctg aag acc aaa
Leu Leu Thr Ala Ser Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys
                                20
gat gat gtg ccc ctg tca tct ttc cga gat aat gca aag agt acc cta
                                                                     149
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
                            35
                                                                     197
cga aga ctc cag tac aaa cag gct tgc tgt ggc ttt aag atg tgt gtt
Arg Arg Leu Gln Tyr Lys Gln Ala Cys Cys Gly Phe Lys Met Cys Val
cct tqt ggt taaccagcat gaagg
                                                                     221
Pro Cys Gly
<210> 361
<211>
      62
<212>
       PRT
<213> Conus ammiralis
<400> 361
Met His Tyr Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Gly Pro Ser Val Asp Ala Gln Leu Lys Thr Lys Asp Asp Val Pro Leu
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Arg Arg Leu Gln Tyr
Lys Gln Ala Cys Cys Gly Phe Lys Met Cys Val Pro Cys Gly
                        55
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<210> 362
<211>
      12
<212>
      PRT
<213> Conus ammiralis
<220>
<221>
      PEPTIDE
<222>
      (1)..(12)
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 11 is Pro or
      hydroxy-Pro
<400> 362
Xaa Ala Cys Cys Gly Phe Lys Met Cys Val Xaa Cys
<210>
      363
<211>
      211
<212> DNA
<213> Conus pennaceus
<220>
<221> CDS
<222>
      (1)..(192)
<400> 363
atg ege tgt etc eca gte tte gte att ett etg etg etg aet gea tet
                                                                      48
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
gca cct agc gtt gat gcc aaa gtt cat ctg aag acc aaa ggt gat ggg
                                                                      96
Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
            20
                                25
ccc ctg tca tct ttc cga gat aat gca aag agt acc cta caa aga ctt
                                                                     144
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
        35
cag gac aaa agc act tgc tgt ggc ttt aag atg tgt att cct tgt cgt
                                                                     192
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
   50
                                                                     211
taaccagcat gaaggatcc
<210> 364
<211> 64
<212>
      PRT
<213> Conus pennaceus
<400> 364
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Thr Ala Ser
Ala Pro Ser Val Asp Ala Lys Val His Leu Lys Thr Lys Gly Asp Gly
Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu
Gln Asp Lys Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
```

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<210>
      365
<211>
      13
<212>
      PRT
<213> Conus pennaceus
<220>
<221>
      PEPTIDE
<222>
      (1)..(13)
      Xaa at residue 13 is Pro or hydroxy-Pro
<223>
<400> 365
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Xaa Cys Arg
<210>
       366
<211>
      304
<212> DNA
<213> Conus pennaceus
<220>
<221> CDS
      (3)..(50)
<222>
<220>
<221>
      misc feature
<222>
      (1)..(304)
<223>
      n is unknown
<400> 366
ca gga tcc aat ggg gtt tgt tgt ggc ttt tgg atg tgt att cct tgt
                                                                      47
   Gly Ser Asn Gly Val Cys Cys Gly Phe Trp Met Cys Ile Pro Cys
                                       10
aat taaccagcat gaagggaaat gactttggat aagacccctg cgaactgtcc
                                                                      100
Asn
ttggatgtga gatttggaaa gcagactgtt ccttttgcac gtgttcgtgg aatttcgaat
                                                                      160
ggtcgttaac aacacgctgc cacttgcaag ctactatctc tctgtccttt catctgtgga
                                                                      220
actgtatgat ctaacaactg aaatatcata gaaatttttc aatgggtata cactatgcat
                                                                      280
                                                                      304
atgaccatgt angggtcaac agnc
<210>
      367
<211>
      16
<212>
      PRT
<213> Conus pennaceus
<400> 367
Gly Ser Asn Gly Val Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
                                    10
<210>
      368
<211>
      14
<212>
      PRT
<213> Conus pennaceus
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<220>
<221> PEPTIDE
<222>
       (1)..(14)
      Xaa at residue 12 is Pro or hydroxy-Pro; Xaa at residue 8 is Trp
       (D or L) or bromo-Trp (D or L)
<400> 368
Asn Gly Val Cys Cys Gly Phe Xaa Met Cys Ile Xaa Cys Asn
<210>
      369
<211>
      218
<212>
      DNA
<213>
      Conus omaria
<220>
<221>
      CDS
<222>
      (21)..(203)
<400> 369
ggaagetgae tacaageaga atg ege tgt etc eca gte tte gte att ett etg
                                                                       53
                      Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu
                                                                      101
ctg ctg act gca tct gca cct agc gtt gat gcc cga ccg aag gcc aaa
Leu Leu Thr Ala Ser Ala Pro Ser Val Asp Ala Arg Pro Lys Ala Lys
                                20
            15
gat gat gtg ccc ctg tca tct ttc cgt gat aat gca aag agt acc cta
                                                                      149
Asp Asp Val Pro Leu Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu
        30
                            35
                                                 4 N
                                                                      197
caa aga ctt cag gac aaa gac gtt tgc tgt tac gtt aga atg tgt cct
Gln Arg Leu Gln Asp Lys Asp Val Cys Cys Tyr Val Arg Met Cys Pro
                        50
tgt cgt taaccagcat gaagg
                                                                      218
Cys Arg
60
<210>
      370
<211>
      61
<212>
      PRT
<213> Conus omaria
<400> 370
Met Arg Cys Leu Pro Val Phe Val Ile Leu Leu Leu Leu Thr Ala Ser
Ala Pro Ser Val Asp Ala Arg Pro Lys Ala Lys Asp Asp Val Pro Leu
            20
Ser Ser Phe Arg Asp Asn Ala Lys Ser Thr Leu Gln Arg Leu Gln Asp
Lys Asp Val Cys Cys Tyr Val Arg Met Cys Pro Cys Arg
    50
                        55
<210> 371
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<211> 12
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222>
       (1)..(12)
<223> Xaa at residue 10 is Pro or hydroxy-Pro; Xaa at residue 5 is Tyr,
        125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-
       Tyr
Asp Val Cys Cys Xaa Val Arg Met Cys Xaa Cys Arg
<210>
      372
<211>
      84
<212>
      PRT
<213> Conus radiatus
<220>
<221> PEPTIDE
<222>
       (1)..(84)
<223> Xaa at residues 27, 32, 38, 39 and 41 is Glu or gamma-carboxy-Glu; Xaa at residues 2, 5, 17, 23, 43, 45 and 58 is Pro or hydroxy-P
       ro; Xaa at residue 8 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr,
        O-sulpho-Tyr or O-phospho-Tyr
<400> 372
His Xaa Thr Lys Xaa Cys Met Xaa Cys Ser Phe Gly Gln Cys Val Gly
Xaa His Ile Cys Cys Gly Xaa Thr Gly Cys Xaa Met Gly Thr Ala Xaa
            20
Ala Asn Met Cys Ser Xaa Xaa Asp Xaa Asp Xaa Ile Xaa Cys Gln Val
                              40
Phe Gly Ser Asp Cys Ala Leu Asn Asn Xaa Asp Asn Ile His Gly His
Cys Val Ala Asp Gly Ile Cys Cys Val Asp Asp Thr Cys Thr Thr His
                                          75
Leu Gly Cys Leu
<210> 373
<211>
      218
<212> DNA
<213> Conus tessulatus
<220>
<221> CDS
<222>
      (7)..(174)
<400> 373
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtt
                                                                          48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                              10
       1
```

```
gtt tcc ttc agt gca gat cgt gcc aac gtc aaa gcg tct gac ctg atc
                                                                       96
Val Ser Phe Ser Ala Asp Arg Ala Asn Val Lys Ala Ser Asp Leu Ile
                    20
gcc cag gcc acc aga gac ggc tgt cca cca cat ccc gtt cct ggc atg
                                                                      144
Ala Gln Ala Thr Arg Asp Gly Cys Pro Pro His Pro Val Pro Gly Met
                                     40
cat aag tgc atg tgt act aat aca tgt ggt tgaagacgct gatgctccag
                                                                      194
His Lys Cys Met Cys Thr Asn Thr Cys Gly
            50
gaccetetga accaegacet egag
                                                                       218
<210> 374
<211> 56
<212> PRT
<213> Conus tessulatus
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Ser Ala Asp Arg Ala Asn Val Lys Ala Ser Asp Leu Ile Ala Gln
Ala Thr Arg Asp Gly Cys Pro Pro His Pro Val Pro Gly Met His Lys
                            40
Cys Met Cys Thr Asn Thr Cys Gly
<210> 375
<211> 20
<212> PRT
<213> Conus tessulatus
<220>
<221> PEPTIDE
<222> (1)..(20)
<223> Xaa at residues 4, 5, 7 and 9 is Pro or hydroxy-Pro
<400> 375
Asp Gly Cys Xaa Xaa His Xaa Val Xaa Gly Met His Lys Cys Met Cys
Thr Asn Thr Cys
            20
<210> 376
<211> 536
<212> DNA
<213> Conus geographus
<220>
<221> CDS
<222> (400)..(510)
<220>
<221> misc_feature
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<222> (1)..(536)n is unknown <223> <400> anntagantn tgtcgtanta nnggatcnta antantgnnt cganatgatn angagtgata 60 120 aatgannggt gcactnntan ttangntnnt angatnnnna tattatnnta nnnnntaana natatnggtn nggannaaga agantaaaag tanngnttng tgaaanaang annnnatgtt 180 nnanntcata acnnnaatgt aaataatana cgnnccagtg tgaaannntn tcnnnnataa 240 aaattctntn tntnaangtn nntgtntgng tgtgtgtgtg tgtgtgtgt tgtgngtgtg 300 360 414 tgtgtgtgtg tgtgtgtgtn tgtggttctg ggtccagca tct gat gnc agg gat Ser Asp Xaa Arg Asp 462 gac aca gcc aaa gac gaa ggg tct nac atg gac aaa ttg gtc gag aaa Asp Thr Ala Lys Asp Glu Gly Ser Xaa Met Asp Lys Leu Val Glu Lys 10 15 510 aaa qaa tgt tgc cat cct gcc tgt ggc aaa cac tac agt tgt gga cgc Lys Glu Cys Cys His Pro Ala Cys Gly Lys His Tyr Ser Cys Gly Arg 30 536 tgatgctcca gggtntgaag gancaa 377 <210> <211> 37 <212> PRT <213> Conus geographus <220> <221> misc_feature <222> (1)..(37) <223> Xaa is unknown <400> 377 Ser Asp Xaa Arg Asp Asp Thr Ala Lys Asp Glu Gly Ser Xaa Met Asp 5 Lys Leu Val Glu Lys Lys Glu Cys Cys His Pro Ala Cys Gly Lys His Tyr Ser Cys Gly Arg 35 <210> 378 <211> 1.3 <212> PRT <213> Conus geographus <220> <221> PEPTIDE <222> (1)..(13)<223> Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa at residue 5 is Pro or hydroxy-Pro; Xaa at residue 11 is Tyr, 125I-Tyr, mono-iod o-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr

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<400> 378
Xaa Cys Cys His Xaa Ala Cys Gly Lys His Xaa Ser Cys
<210>
      379
<211>
      217
<212>
      DNA
<213> Conus geographus
<220>
<221>
      CDS
<222>
      (7)..(183)
<400> 379
                                                                       48
ggatce atg tte ace gtg ttt etg ttg gtg gte ttg gea ace act gte
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                           10
gtt tee tte eet tea gaa egt gea tet gat gge agg gat gae aca gee
                                                                       96
Val Ser Phe Pro Ser Glu Arg Ala Ser Asp Gly Arg Asp Asp Thr Ala
15
                    20
                                        25
aaa qac qaa qgg tct gac atg gag aaa ttg gtc gag aaa aaa gaa tgt
                                                                      144
Lys Asp Glu Gly Ser Asp Met Glu Lys Leu Val Glu Lys Lys Glu Cys
                                    40
tgc aat cct gcc tgt ggc aga cac ttc agt tgt gga cgc tgatgctcca
                                                                      193
Cys Asn Pro Ala Cys Gly Arg His Phe Ser Cys Gly Arg
            50
                                                                     217
ggaccctctg aaccacgact cgag
<210>
      380
<211>
      59
<212>
      PRT
<213> Conus geographus
<400> 380
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Pro Ser Glu Arg Ala Ser Asp Gly Arg Asp Asp Thr Ala Lys Asp
            20
Glu Gly Ser Asp Met Glu Lys Leu Val Glu Lys Lys Glu Cys Cys Asn
Pro Ala Cys Gly Arg His Phe Ser Cys Gly Arg
    50
<210> 381
<211>
      13
<212> PRT
<213> Conus geographus
<220>
<221> PEPTIDE
<222>
      (1)..(13)
<223> Xaa at residue 1 is Glu or gamma-carboxy-Glu; Xaa at residue 5 is
```

Pro or hydroxy-Pro

<400> Xaa Cys 1	381 Cys	Asn	Xaa 5	Ala	Cys	Gly	Arg	His 10	Phe	Ser	Cys				
<210> <211> <212> <213>	382 224 DNA Conu	s st	riat	us											
<220> <221> <222>	CDS	. (20	7)												
<400> ggatcc	382 atg Met 1			Val		_	_	_	Val :	-	_			_	48
gtt tcc Val Ser 15															96
aaa gac Lys Asp	_			_	_		_	•	-				_	-	144
tac tgt Tyr Cys	_			-	_										192
tgc tcc Cys Ser				tgaa	acca	cga (cctc	gag							224
<210> <211> <212> <213>	383 67 PRT Conu	s st:	riat	us											
<400> Met Phe 1	383 Thr	Val	Phe 5	Leu	Leu	Val	Val	Leu 10	Ala	Thr	Thr	Val	Val 15	Ser	
Phe Thr	Ser	Asp 20	Arg	Ala	Ser	Asp	Gly 25	Arg	Asp	Asp	Glu	Ala 30	Lys	Asp	
Glu Arg	Ser 35	Asp	Met	His	Glu	Ser 40	Asp	Arg	Lys	Gly	Arg 45	Ala	Tyr	Cys	
Cys His 50	Pro	Ala	Cys	Gly	Pro 55	Asn	Tyr	Ser	Cys	Gly 60	Thr	Ser	Cys	Ser	
Arg Thr 65	Leu														
<210> <211> <212>	384 22 PRT														

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<213> Conus striatus
<220>
<221> PEPTIDE
<222>
      (1)..(22)
<223> Xaa at residues 6 and 10 is Pro or hydroxy-Pro; Xaa at residues 2
       and 12 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Ty
       r or O-phospho-Tyr
Ala Xaa Cys Cys His Xaa Ala Cys Gly Xaa Asn Xaa Ser Cys Gly Thr
Ser Cys Ser Arg Thr Leu
            20
<210> 385
<211> 224
<212> DNA
<213> Conus striatus
<220>
<221> CDS
<222> (7)..(189)
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc act tca gat cgt gca tct gat ggc agg gat gac gaa gcc
                                                                      96
Val Ser Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala
aaa gac gaa agg tet gac atg cac gaa teg gac egg aaa gga ege gea
                                                                     144
Lys Asp Glu Arg Ser Asp Met His Glu Ser Asp Arg Lys Gly Arg Ala
                                                                     189
tac tgt tgc cat cct gtc tgt ggc aaa aac ttt gat tgt gga cgc
Tyr Cys Cys His Pro Val Cys Gly Lys Asn Phe Asp Cys Gly Arg
                                                                     224
tgatgctcca ggaccctctg aaccacgacc tcgag
      386
<210>
<211>
      61
<212>
      PRT
<213> Conus striatus
<400> 386
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                5
Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asp Glu Ala Lys Asp
                                25
Glu Arg Ser Asp Met His Glu Ser Asp Arg Lys Gly Arg Ala Tyr Cys
        35
                            40
```

Cys His Pro Val Cys Gly Lys Asn Phe Asp Cys Gly Arg

```
50
                       55
                                            60
<210> 387
<211> 14
<212> PRT
<213> Conus striatus
<220>
<221> PEPTIDE
<222>
      (1)..(14)
<223> Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 2 is Tyr,
       125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-T
<400> 387
Ala Xaa Cys Cys His Xaa Val Cys Gly Lys Asn Phe Asp Cys
                                    10
<210> 388
<211>
       224
<212> DNA
<213> Conus rattus
<220>
<221> CDS
<222> (7)..(207)
<400> 388
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc act gtc
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc cct tca gat cgt gca tct gat ggc agg gat gac gaa gcc
                                                                      96
Val Ser Phe Pro Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala
                    20
                                                                     144
aaa gac gaa agg tct gac atg cac gaa tcg gac cgg aat gga cgc gga
Lys Asp Glu Arg Ser Asp Met His Glu Ser Asp Arg Asn Gly Arg Gly
                                                                     192
tgc tgt tgc aat cct gcc tgt ggc cca aac tat ggt tgt ggc acc tca
Cys Cys Cys Asn Pro Ala Cys Gly Pro Asn Tyr Gly Cys Gly Thr Ser
                                                                     224
tgc tcc agg acc ctc tgaaccacga cctcgag
Cys Ser Arg Thr Leu
        65
<210>
      389
<211> 67
<212> PRT
<213> Conus rattus
<400> 389
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                                        15
Phe Pro Ser Asp Arg Ala Ser Asp Gly Arg Asp Asp Glu Ala Lys Asp
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25

20

Glu Arg Ser Asp Met His Glu Ser Asp Arg Asn Gly Arg Gly Cys Cys 40 Cys Asn Pro Ala Cys Gly Pro Asn Tyr Gly Cys Gly Thr Ser Cys Ser 55 60 Arg Thr Leu <210> 390 <211> 22 <212> PRT <213> Conus rattus <220> <221> PEPTIDE <222> (1)..(22)<223> Xaa at residues 6 and 10 is Pro or hydroxy-Pro; XXaa at residue 1 2 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O -phospho-Tyr <400> 390 Gly Cys Cys Cys Asn Xaa Ala Cys Gly Xaa Asn Xaa Gly Cys Gly Thr Ser Cys Ser Arg Thr Leu 20 <210> 391 <211> 230 <212> DNA <213> Conus arenatus <220> <221> CDS <222> (7)..(195) <400> 391 ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gtg 48 Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val 96 gat tee tte act eea gtt egt act tet gtt gge agg agt get gea gee Asp Ser Phe Thr Pro Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala 20 144 aac gcg ttt gac cgg atc gct ctg acc gcc agg caa gat tat tgc tgt Asn Ala Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys acc att ccc agc tgt tgg gat cgc tat aaa gag aga tgt aga cac ata 192 Thr Ile Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile 55 cgc tgatgctcca ggaccctctg aaccacgacc ttgag 230 Arq <210> 392 <211> 63 <212> PRT

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<213> Conus arenatus
<400> 392
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Asp Ser
Phe Thr Pro Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala Asn Ala
                                25
Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys Thr Ile
                            40
Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile Arg
                        55
       393
<210>
<211> 22
<212> PRT
<213> Conus arenatus
<220>
<221> PEPTIDE
<222>
      (1)..(22)
<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 16 is Glu or
       gamma-carboxy-Glu; Xaa at residue 8 is Pro or hydroxy-Pro; Xaa at
       residue 11 is Trp (D or L) or bromo-Trp (D or L);
<220>
<221> PEPTIDE
<222>
      (1)..(22)
<223> Xaa at residues 3 and 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo
       -Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 393
Xaa Asp Xaa Cys Cys Thr Ile Xaa Ser Cys Xaa Asp Arg Xaa Lys Xaa
Arg Cys Arg His Ile Arg
           20
<210> 394
<211> 230
<212> DNA
<213> Conus eburneus
<220>
<221> CDS
<222> (7)..(195)
<400> 394
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gtg
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                      96
gat tee tte act tea gtt egt act tee gtt gge agg agt get gea gee
Asp Ser Phe Thr Ser Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala
                    20
                                        25
aac gcg ttt gac cgg atc gct ctg acc gcc agg caa gat tat tgc tgt
                                                                     144
```

Asn Ala Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys

35 40 45 acc att ccc agc tgt tgg gat cgc tat aaa gag aga tgt aga cac ata 192 Thr Ile Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile 55 230 cgc tgatgctcca ggaccctctg aaccacgacc tcgag Arg <210> 395 <211> 63 <212> PRT <213> Conus eburneus <400> 395 Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Asp Ser Phe Thr Ser Val Arg Thr Ser Val Gly Arg Ser Ala Ala Ala Asn Ala 25 Phe Asp Arg Ile Ala Leu Thr Ala Arg Gln Asp Tyr Cys Cys Thr Ile 40 Pro Ser Cys Trp Asp Arg Tyr Lys Glu Arg Cys Arg His Ile Arg 50 <210> 396 22 <211> PRT <212> <213> Conus eburneus <220> <221> PEPTIDE <222> (1)..(22)<223> Xaa at residue 1 is Gln or pyro-Gln; Xaa at residue 16 is Glu or gamma-carboxy-Glu; Xaa at residue 8 is Pro or hydroxy-Pro; Xaa at residue 11 is Trp (D or L) or bromo-Trp (D or L); <220> <221> PEPTIDE <222> (1)..(22)<223> Xaa at residues 3 and 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo -Tyr, O-sulpho-Tyr or O-phospho-Tyr <400> 396 Xaa Asp Xaa Cys Cys Thr Ile Xaa Ser Cys Xaa Asp Arg Xaa Lys Xaa Arg Cys Arg His Ile Arg 20 <210> 397 221 <211> <212> DNA <213> Conus miles <220> <221> CDS

<222> (7)..(177)

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<400> 397
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea act get gtt
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Ala Val
ctt cca qtc act tta qat cgt gca tct gat gga agg aat gca qcc
                                                                      96
Leu Pro Val Thr Leu Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala
aac gcc aaa acg cct cgc ctg atc gcg cca ttc atc agg gat tat tgc
                                                                     144
Asn Ala Lys Thr Pro Arg Leu Ile Ala Pro Phe Ile Arg Asp Tyr Cys
tgt cat aga ggt ccc tgt atg gta tgg tgt ggt tgaagccgct gctgctccag
                                                                     197
Cys His Arg Gly Pro Cys Met Val Trp Cys Gly
            50
                                                                     221
gaccctctga accacgacct cgag
<210>
      398
<211>
      57
<212>
      PRT
<213> Conus miles
<400> 398
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Ala Val Leu Pro
                                    10
Val Thr Leu Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala Asn Ala
                                25
Lys Thr Pro Arg Leu Ile Ala Pro Phe Ile Arg Asp Tyr Cys Cys His
Arg Gly Pro Cys Met Val Trp Cys Gly
<210> 399
<211> 13
<212> PRT
<213> Conus miles
<220>
<221> PEPTIDE
<222>
      (1)..(13)
<223>
      Xaa at residue 8 is Pro or hydroxy-Pro; Xaa at residue 12 is Trp
       (D or L) or bromo-Trp (D or L); Xaa at residue 2 is Tyr, 125I-Tyr
       , mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 399
Asp Xaa Cys Cys His Arg Gly Xaa Cys Met Val Xaa Cys
<210>
      400
<211>
      218
<212>
      DNA
<213>
      Conus jDedius
<220>
```

```
<221> CDS
<222> (7)..(174)
<400> 400
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc aac tct tca gat cgt ggt cca gca tct aat aaa agg aag aat
                                                                      96
Val Ser Asn Ser Ser Asp Arg Gly Pro Ala Ser Asn Lys Arg Lys Asn
                    20
gcc gca atg ctt gac atg atc gct caa cac gcc ata agg ggt tgc tgt
                                                                     144
Ala Ala Met Leu Asp Met Ile Ala Gln His Ala Ile Arg Gly Cys Cys
tcc gat cct cgc tgt aga tat aga tgt cgt tgaagacgct gctgctccag
                                                                     194
Ser Asp Pro Arg Cys Arg Tyr Arg Cys Arg
gaccctctga accacgacct cgag
                                                                     218
<210> 401
<211> 56
<212> PRT
<213> Conus jDedius
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                    10
Asn Ser Ser Asp Arg Gly Pro Ala Ser Asn Lys Arg Lys Asn Ala Ala
            20
Met Leu Asp Met Ile Ala Gln His Ala Ile Arg Gly Cys Cys Ser Asp
Pro Arg Cys Arg Tyr Arg Cys Arg
    50
<210> 402
<211> 13
<212> PRT
<213> Conus jDedius
<220>
<221> PEPTIDE
<222> (1)..(13)
<223> Xaa at residue 6 is Pro or hydroxy-Pro; Xaa at residue 10 is Tyr,
      125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-T
<400> 402
Gly Cys Cys Ser Asp Xaa Arg Cys Arg Xaa Arg Cys Arg
                5
<210> 403
<211> 17
<212> PRT
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<213> Conus omaria

```
<220>
<221> PEPTIDE
<222> (1)..(17)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro
Gly Cys Cys Ser His Xaa Ala Cys Asn Val Asn Asn Xaa His Ile Cys
                                    10
Gly
<210> 404
<211> 17
<212> PRT
<213> Conus omaria
<220>
<221> PEPTIDE
<222>
      (1)..(17)
<223> Xaa at residues 6 and 13 is Pro or hydroxy-Pro; C terminus contai
      ns free hydroxyl
<400> 404
Gly Cys Cys Ser His Xaa Ala Cys Asn Val Asn Asn Xaa His Ile Cys
Gly
<210> 405
<211> 224
<212> DNA
<213> Conus quercinus
<220>
<221> CDS
<222> (7)..(189)
<400> 405
ggated atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
                                                                     48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
act tca gat cgt gta tct aat ggc agg aaa gct gca gcc aaa ttc aaa
                                                                      96
Thr Ser Asp Arg Val Ser Asn Gly Arg Lys Ala Ala Ala Lys Phe Lys
                   20
                                                                     144
gcg cct gcc ctg atg gag ctg tcc gtc agg caa gga tgc tgt tca gat
Ala Pro Ala Leu Met Glu Leu Ser Val Arg Gln Gly Cys Cys Ser Asp
                                                                    189
cct gcc tgt gcc gtg agc aat cca gac atc tgt ggc gga gga cgc
Pro Ala Cys Ala Val Ser Asn Pro Asp Ile Cys Gly Gly Arg
tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                     224
<210> 406
<211> 61
<212> PRT
<213> Conus quercinus
```

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<400> 406
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Thr Ser
                                    10
Asp Arg Val Ser Asn Gly Arg Lys Ala Ala Ala Lys Phe Lys Ala Pro
Ala Leu Met Glu Leu Ser Val Arg Gln Gly Cys Cys Ser Asp Pro Ala
Cys Ala Val Ser Asn Pro Asp Ile Cys Gly Gly Arg
<210> 407
<211> 19
<212> PRT
<213> Conus quercinus
<220>
<221>
      PEPTIDE
<222>
      (1)..(19)
      Xaa at residue 1 is Gln or pyro-Gln; Xaa at residues 7 and 14 is
       Pro or hydroxy-Pro
Xaa Gly Cys Cys Ser Asp Xaa Ala Cys Ala Val Ser Asn Xaa Asp Ile
Cys Gly Gly
<210>
      408
<211>
      230
<212>
      DNA
<213>
      Conus bandanus
<220>
<221>
      CDS
<222>
      (7)..(186)
<400> 408
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gtt
                                                                       48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                      96
gtt tee tte act tea aat egt gea ttt egt egt agg aat gee gta gee
Val Ser Phe Thr Ser Asn Arg Ala Phe Arg Arg Arg Asn Ala Val Ala
15
                    20
                                                                     144
aaa gcg tct gac ctg atc gct ctg aac gcc agg aga cca gaa tgc tgt
Lys Ala Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg Pro Glu Cys Cys
                35
                                                                     186
act cat cct gcc tgt cac gtg agt cat cca gaa ctc tgt ggt
Thr His Pro Ala Cys His Val Ser His Pro Glu Leu Cys Gly
tgaagacgct gacgctccag gaccctctga accacgacct cgag
                                                                     230
<210> 409
```

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<211> 60
<212> PRT
<213> Conus bandanus
<400> 409
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asn Arg Ala Phe Arg Arg Asn Ala Val Ala Lys Ala
                                25
Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg Pro Glu Cys Cys Thr His
                            40
Pro Ala Cys His Val Ser His Pro Glu Leu Cys Gly
    50
                        55
<210> 410
<211> 17
<212> PRT
<213> Conus bandanus
<220>
<221> PEPTIDE
<222>
      (1)..(17)
<223> Xaa at residues 2 and 15 is Glu or gamma-carboxy-Glu; Xaa at resi
       dues 1, 7 and 14 is Pro or hydroxy-Pro
<400> 410
Xaa Xaa Cys Cys Thr His Xaa Ala Cys His Val Ser His Xaa Xaa Leu
Cys
<210> 411
<211> 242
<212> DNA
<213> Conus marmoreus
<220>
<221> CDS
<222> (7)..(198)
<400> 411
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gtt
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                      96
gtt tcc ttc act tca aat cgt gtt ctg gat cca gca ttt cgt cgt agg
Val Ser Phe Thr Ser Asn Arg Val Leu Asp Pro Ala Phe Arg Arg Arg
                    20
aat gcc gca gcc aaa gcg tct gac ctg atc gct ctg aac gcc agg aga
                                                                     144
Asn Ala Ala Lys Ala Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg
cca gaa tgc tgt act cat cct gcc tgt cac gtg agt aat cca gaa ctc
                                                                     192
Pro Glu Cys Cys Thr His Pro Ala Cys His Val Ser Asn Pro Glu Leu
            50
                                55
```

```
tgt ggc tgaaqacgct gatgctccag gaccctctga accacgacct cgag
                                                                    242
Cys Gly
<210> 412
<211> 64
<212> PRT
<213> Conus marmoreus
<400> 412
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asn Arg Val Leu Asp Pro Ala Phe Arg Arg Asn Ala
Ala Ala Lys Ala Ser Asp Leu Ile Ala Leu Asn Ala Arg Arg Pro Glu
Cys Cys Thr His Pro Ala Cys His Val Ser Asn Pro Glu Leu Cys Gly
                       55
<210> 413
<211> 17
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222>
      (1)..(17)
      Xaa at residues 2 and 15 is Glu or gamma-carboxy-Glu; Xaa at resi
<223>
      dues 1, 7 and 14 is Pro or hydroxy-Pro
<400> 413
Xaa Xaa Cys Cys Thr His Xaa Ala Cys His Val Ser Asn Xaa Xaa Leu
                                    10
Cys
<210> 414
      218
<211>
<212>
      DNA
<213> Conus miles
<220>
<221> CDS
<222> (7)..(174)
<400> 414
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                      96
gtt tcc gtc act tca tat cgt gca tct cat ggc agg aag gac gca gcc
Val Ser Val Thr Ser Tyr Arg Ala Ser His Gly Arg Lys Asp Ala Ala
                   20
gac ctg agc gct ctg aac gac aac aat aat tgc tgt aac cat cct gcc
                                                                     144
Asp Leu Ser Ala Leu Asn Asp Asn Asn Cys Cys Asn His Pro Ala
                35
```

```
tgt gcc ggg aaa aat tca gat ctt tgt ggt tgaagacgct gctgctccag
                                                                    194
Cys Ala Gly Lys Asn Ser Asp Leu Cys Gly
gaccctctga accacgacct cgag
                                                                     218
<210> 415
<211> 56
<212> PRT
<213> Conus miles
<400> 415
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                    10
Val Thr Ser Tyr Arg Ala Ser His Gly Arg Lys Asp Ala Ala Asp Leu
           20
                               25
Ser Ala Leu Asn Asp Asn Asn Cys Cys Asn His Pro Ala Cys Ala
                            40
Gly Lys Asn Ser Asp Leu Cys Gly
<210> 416
      15
<211>
<212> PRT
<213> Conus miles
<220>
<221> PEPTIDE
      (1)..(15)
<223> Xaa at residue 5 is Pro or hydroxy-Pro
<400> 416
Cys Cys Asn His Xaa Ala Cys Ala Gly Lys Asn Ser Asp Leu Cys
<210> 417
      16
<211>
<212> PRT
<213> Conus magus
<220>
<221> PEPTIDE
<222>
      (1)..(16)
<223> Xaa at residue 11 is Glu or gamma-carboxy-Glu; Xaa at residue 6 i
      s Pro or hydroxy-Pro; Xaa at residue 4 is Tyr, 125I-Tyr, mono-iod
      o-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Tyr
<400> 417
Gly Cys Cys Xaa His Xaa Thr Cys His Leu Xaa His Ser Asn Leu Cys
                                   10
                5
<210> 418
<211>
      224
<212> DNA
<213> Conus nobilis
<220>
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<221> CDS
<222> (7)..(189)
<220>
<221> misc feature
<222>
      (1)..(224)
<223> n is unknown
<400> 418
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gtt
                                                                       48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
                                                                       96
gtt tcc ttc act tca gat cgt gca tct gat ggc agg aat gcc gca gcc
Val Ser Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala
                    20
                                        25
aaa get tet gae etg att get ttg ace gte agg gga tge tgt gag ega
                                                                      144
Lys Ala Ser Asp Leu Ile Ala Leu Thr Val Arg Gly Cys Cys Glu Arg
                35
                                    40
                                                                      189
cct ccc tqt cgc tqg caa aat cca gat ctt tgt ggt gga agg cgc
Pro Pro Cys Arg Trp Gln Asn Pro Asp Leu Cys Gly Gly Arg Arg
            50
                                55
                                                                      224
tganattcca ggaccctctg aaccacgacc tcgag
<210>
      419
<211>
       61
<212>
      PRT
<213> Conus nobilis
<400> 419
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Arg Ala Ser Asp Gly Arg Asn Ala Ala Ala Lys Ala
            20
Ser Asp Leu Ile Ala Leu Thr Val Arg Gly Cys Cys Glu Arg Pro Pro
                            40
Cys Arg Trp Gln Asn Pro Asp Leu Cys Gly Gly Arg Arg
<210> 420
<211> 17
<212> PRT
<213> Conus nobilis
<220>
<221> PEPTIDE
<222>
      (1)...(17)
<223> Xaa at residue 4 is Glu or gamma-carboxy-Glu; Xaa at residues 6,
       7 and 13 is Pro or hydroxy-Pro; Xaa at residue 10 is Trp (D or L)
       or bromo-Trp (D or L)
<400> 420
Gly Cys Cys Xaa Arg Xaa Xaa Cys Arg Xaa Gln Asn Xaa Asp Leu Cys
```

10

5

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Gly
<210>
      421
<211>
      233
<212> DNA
<213> Conus atlanticus
<220>
<221> CDS
<222> (7)..(198)
<400> 421
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace aca gte
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt too tto act toa gat agt goa ttt gat ago agg aat gto goa goo
                                                                      96
Val Ser Phe Thr Ser Asp Ser Ala Phe Asp Ser Arg Asn Val Ala Ala
                    20
                                        25
aac gac aaa gtg tct gac atg atc gct ctg acc gcc agg aga aca tgc
                                                                     144
Asn Asp Lys Val Ser Asp Met Ile Ala Leu Thr Ala Arg Arg Thr Cys
                                    40
tgt tcc cgt cct acc tgt aga atg gaa tat cca gaa ctt tgt ggt gga
                                                                     192
Cys Ser Arg Pro Thr Cys Arg Met Glu Tyr Pro Glu Leu Cys Gly Gly
aga cgc tgatactcca ggaccctctg aaccacgacc tcgag
                                                                     233
Arg Arg
<210> 422
<211> 64
<212> PRT
<213> Conus atlanticus
<400> 422
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Phe Thr Ser Asp Ser Ala Phe Asp Ser Arg Asn Val Ala Ala Asn Asp
                                25
Lys Val Ser Asp Met Ile Ala Leu Thr Ala Arg Arg Thr Cys Cys Ser
Arg Pro Thr Cys Arg Met Glu Tyr Pro Glu Leu Cys Gly Gly Arg Arg
<210> 423
<211> 17
<212> PRT
<213> Conus atlanticus
<220>
<221> PEPTIDE
<222> (1)..(17)
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<223> Xaa at residues 11 and 14 is Glu or gamma-carboxy-Glu; Xaa at res
       idues 6 and 13 is Pro or hydroxy-Pro; Xaa at residue 12 is Tyr, 1
       25I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-phospho-Ty
<400> 423
Thr Cys Cys Ser Arg Xaa Thr Cys Arg Met Xaa Xaa Xaa Leu Cys
                                    10
Gly
<210> 424
<211> 227
<212> DNA
<213> Conus quercinus
<220>
<221> CDS
<222> (7)..(192)
<220>
<221> misc_feature
<222>
      (1)..(227)
<223> n is unknown
ggatce atg tte ace gtg ttt etg ttg gtt gte ttg gea ate acg gtg
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Ile Thr Val
gtt tcc ttc acc tca gat cat gca tct gat ggc agg aat acc gca gcc
                                                                      96
Val Ser Phe Thr Ser Asp His Ala Ser Asp Gly Arg Asn Thr Ala Ala
                    20
aac gac aaa gcg tct aaa ctg atg gct ctt acg aac gaa tgc tgt gac
                                                                     144
Asn Asp Lys Ala Ser Lys Leu Met Ala Leu Thr Asn Glu Cys Cys Asp
aat cct ccg tgc aag tcg agt aat cca gat ttg tgt gac tgg aga agc
                                                                     192
Asn Pro Pro Cys Lys Ser Ser Asn Pro Asp Leu Cys Asp Trp Arg Ser
                                                                     227
tgatgctcca ggaccctntg aaccacgacc tcgag
<210> 425
<211>
      62
<212> PRT
<213> Conus quercinus
<400> 425
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Ile Thr Val Val Ser
Phe Thr Ser Asp His Ala Ser Asp Gly Arg Asn Thr Ala Ala Asn Asp
                                25
Lys Ala Ser Lys Leu Met Ala Leu Thr Asn Glu Cys Cys Asp Asn Pro
                                                45
       35
                            40
Pro Cys Lys Ser Ser Asn Pro Asp Leu Cys Asp Trp Arg Ser
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50
                       55
                                            60
<210> 426
<211> 21
<212> PRT
<213> Conus quercinus
<220>
<221> PEPTIDE
<222>
      (1)..(21)
<223> Xaa at residue 2 is Glu or gamma-carboxy-Glu; Xaa at residues 7,
       8 and 14 is Pro or hydroxy-Pro; Xaa at residue 19 is Trp (D or L)
        or bromo-Trp (D or L)
<400> 426
Asn Xaa Cys Cys Asp Asn Xaa Xaa Cys Lys Ser Ser Asn Xaa Asp Leu
                                    10
Cys Asp Xaa Arg Ser
            20
<210>
      427
<211>
       221
<212> DNA
<213> Conus leopardus
<220>
<221> CDS
      (7)..(177)
<222>
<400> 427
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ttg gca acc acg gtc
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ctc act tta gat cgt gca tct ggt ggc agg aga tct gga gcc
                                                                      96
Val Ser Leu Thr Leu Asp Arg Ala Ser Gly Gly Arg Arg Ser Gly Ala
15
                    20
gac aac atg att gct ctt ctg atc atc aga aaa tgc tgt tcc aat ccc
                                                                     144
Asp Asn Met Ile Ala Leu Leu Ile Ile Arg Lys Cys Ser Asn Pro
                35
gcc tgt aac agg tat aat cca gca att tgt gat tgaagacgct aatgctccag
                                                                     197
Ala Cys Asn Arg Tyr Asn Pro Ala Ile Cys Asp
            50
gaccctctga accacgacct cgag
                                                                     221
<210> 428
<211> 57
<212> PRT
<213> Conus leopardus
<400> 428
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Leu Thr Leu Asp Arg Ala Ser Gly Gly Arg Arg Ser Gly Ala Asp Asn
            20
                                25
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Met Ile Ala Leu Leu Ile Ile Arg Lys Cys Cys Ser Asn Pro Ala Cys
Asn Arg Tyr Asn Pro Ala Ile Cys Asp
                        55
<210> 429
<211> 16
<212> PRT
<213> Conus leopardus
<220>
<221> PEPTIDE
<222>
      (1)..(16)
<223> Xaa at residues 5 and 12 is Pro or hydroxy-Pro; Xaa at residue 10
       is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-
       phospho-Tyr
Cys Cys Ser Asn Xaa Ala Cys Asn Arg Xaa Asn Xaa Ala Ile Cys Asp
                5
                                    10
<210> 430
<211>
      224
<212> DNA
<213> Conus emaciatus
<220>
<221> CDS
<222> (7)..(180)
<400> 430
                                                                      48
ggated atg tte ace gtg ttt etg ttg gtt ete ttg gea ace act gte
       Met Phe Thr Val Phe Leu Leu Val Leu Leu Ala Thr Thr Val
act tta cat cgt gca tct aat ggc agg aat gcc gca gcc agc agg aaa
                                                                      96
Thr Leu His Arg Ala Ser Asn Gly Arg Asn Ala Ala Ala Ser Arg Lys
                                        25
                    20
gcg tet gcc etg ate gct eag ate gcc ggt aga gae tgc tgt aac ttt
                                                                     144
Ala Ser Ala Leu Ile Ala Gln Ile Ala Gly Arg Asp Cys Cys Asn Phe
                                    40
                                                                     190
cct gct tgt gcc gcg agt aat cca ggc ctt tgt act tgaagacgct
Pro Ala Cys Ala Ala Ser Asn Pro Gly Leu Cys Thr
gctgctccag gaccctctga accacgacct cgag
                                                                     224
<210> 431
<211> 58
<212> PRT
<213> Conus emaciatus
<400> 431
Met Phe Thr Val Phe Leu Leu Val Leu Leu Ala Thr Thr Val Thr Leu
                5
                                                        15
```

His Arg Ala Ser Asn Gly Arg Asn Ala Ala Ser Arg Lys Ala Ser

		20					25					30			
Ala Le	u Ile 35	Ala	Gln	Ile	Ala	Gly 40	Arg	Asp	Cys	Cys	Asn 45	Phe	Pro	Ala	
Cys Al 50	a Ala	Ser	Asn	Pro	Gly 55	Leu	Суз	Thr							
<210> <211> <212> <213>	432 17 PRT Conu	s ema	aciat	tus											
<220> <221> <222> <223>	PEPT	. (17		ıes (ā and	i 13	is E	?ro d	or hy	ydrox	xy−Pı	0			
<400> Asp Cy 1	432 s Cys	Asn	Phe 5	Xaa	Ala	Cys	Ala	Ala 10	Ser	Asn	Xaa	Gly	Leu 15	Cys	
Thr															
<210><211><212><212><213>	433 215 DNA Conu	s vi	ctor												
<220> <221> <222>	CDS (7).	.(18	٥)												
<400> ggatcc	433 atg Met 1				Phe I				Jal 1						48
gtt tc Val Se 15															96
tct ga Ser As				ctg										CCC	144
tgt tt											tgat	gcto	cca		190
ggaccc	tctg	aacca	acga	cc to	cgag										215
<210> <211> <212> <213>	434 58 PRT Conu	s vi	ctor												
<400> Met Ph 1	434 e Thr	Val	Phe 5	Leu	Leu	Val	Val	Leu 10	Ala	Thr	Thr	Ile	Val 15	Ser	

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Ser Thr Leu Asp Arg Ala Ser Asp Gly Met Asn Ala Ala Ala Ser Asp
Leu Ile Ala Leu Ser Ile Arg Arg Cys Cys Ser Ser Pro Pro Cys Phe
Ala Ser Asn Pro Ala Cys Gly Arg Arg
    50
<210>
      435
<211>
       14
<212>
      PRT
<213> Conus victor
<220>
      PEPTIDE
<221>
<222>
       (1)..(14)
<223> Xaa at residues 5, 6 and 13 is Pro or hydroxy-Pro
Cys Cys Ser Ser Xaa Xaa Cys Phe Ala Ser Asn Xaa Ala Cys
                                    10
<210>
       436
<211>
       230
<212>
       DNA
<213> Conus cinereus gubba
<220>
<221>
      CDS
<222>
      (7)..(195)
<400> 436
ggatcc atg ttc acc gtg ttt ctg ttg gtt gtc ctg gca acc act atc
                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Ile
gtt tcc tcc act tca ggt cat gca ttt gat ggc agg aat gct gca gcc
                                                                       96
Val Ser Ser Thr Ser Gly His Ala Phe Asp Gly Arg Asn Ala Ala Ala
15
                    20
                                                                      144
gac tac aaa ggg tct gaa ttg ctt gct atg acc gtc agg gga gga tgc
Asp Tyr Lys Gly Ser Glu Leu Leu Ala Met Thr Val Arg Gly Gly Cys
                35
                                                         45
                                                                      192
tgt tcc ttt cct ccc tgt atc gca aat aat cct ttt tgt gct gga aga
Cys Ser Phe Pro Pro Cys Ile Ala Asn Asn Pro Phe Cys Ala Gly Arg
                                55
            50
cgc tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                      230
Arg
<210>
       437
<211>
       63
<212>
       PRT
       Conus cinereus gubba
<400> 437
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Ile Val Ser
                5
```

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Ser Thr Ser Gly His Ala Phe Asp Gly Arg Asn Ala Ala Ala Asp Tyr
Lys Gly Ser Glu Leu Leu Ala Met Thr Val Arg Gly Gly Cys Cys Ser
Phe Pro Pro Cys Ile Ala Asn Asn Pro Phe Cys Ala Gly Arg Arg
<210> 438
<211> 17
<212> PRT
<213> Conus cinereus gubba
<220>
<221> PEPTIDE
<222>
      (1)..(17)
<223> Xaa at residues 7, 8 and 14 is Pro or hydroxy-Pro
<400> 438
Gly Gly Cys Cys Ser Phe Xaa Xaa Cys Ile Ala Asn Asn Xaa Phe Cys
               5
                                    10
Ala
<210> 439
<211>
       221
<212> DNA
<213> Conus flavidus
<220>
<221> CDS
<222> (7)..(177)
<400> 439
ggatce atg tte ace gtg ttt etg ttg gtt gte tte gea tee tet gte
                                                                      48
      Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val
                                                                      96
act tta gat cgt gca tct cat ggc agg tat atc cca gtc gtc gac aga
Thr Leu Asp Arg Ala Ser His Gly Arg Tyr Ile Pro Val Val Asp Arg
                    20
                                        25
gcg tct gcc ctg atg gct cag gcc gac ctt aga ggt tgc tgt tcc aat
                                                                     144
Ala Ser Ala Leu Met Ala Gln Ala Asp Leu Arg Gly Cys Cys Ser Asn
                35
cct cct tgt tcc tat ctt aat cca gcc tgt ggt taaagacgct gccgctccag
                                                                     197
Pro Pro Cys Ser Tyr Leu Asn Pro Ala Cys Gly
            50
                                                                     221
gaccctctga accacgacct cgag
<210> 440
<211>
      57
<212> PRT
<213> Conus flavidus
<400> 440
Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val Thr Leu
```

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5
                                    10
                                                         15
Asp Arg Ala Ser His Gly Arg Tyr Ile Pro Val Val Asp Arg Ala Ser
Ala Leu Met Ala Gln Ala Asp Leu Arg Gly Cys Cys Ser Asn Pro Pro
Cys Ser Tyr Leu Asn Pro Ala Cys Gly
<210>
      441
<211>
      15
<212> PRT
<213> Conus flavidus
<220>
<221> PEPTIDE
<222>
      (1)..(15)
       Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro; Xaa at residue
<223>
        10 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or
        O-phospho-Tyr
Gly Cys Cys Ser Asn Xaa Xaa Cys Ser Xaa Leu Asn Xaa Ala Cys
<210>
      442
      221
<211>
<212>
      DNA
<213> Conus emaciatus
<220>
<221>
      CDS
<222>
      (7)..(177)
<400> 442
ggatee atg tte ace gtg ttt etg ttg gtt gte tte gea tee tet gte
                                                                       48
       Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val
                                           10
act tta gat cgt gca tct cat ggc agg tat gcc gca gtc gtc aac aga
                                                                       96
Thr Leu Asp Arg Ala Ser His Gly Arg Tyr Ala Ala Val Val Asn Arg
                    20
                                        25
geg tot gee etg atg get cat gee gee ett ega gat tge tgt tee gat
                                                                      144
Ala Ser Ala Leu Met Ala His Ala Ala Leu Arg Asp Cys Cys Ser Asp
cct cct tgt gct cat aat aat cca gac tgt cgt taaagacgct gctgctccag
                                                                      197
Pro Pro Cys Ala His Asn Asn Pro Asp Cys Arg
gaccctctga accacgacct cgag
                                                                      221
<210>
       443
<211>
       57
<212>
      PRT
<213> Conus emaciatus
<400> 443
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Met Phe Thr Val Phe Leu Leu Val Val Phe Ala Ser Ser Val Thr Leu
Asp Arg Ala Ser His Gly Arg Tyr Ala Ala Val Val Asn Arg Ala Ser
Ala Leu Met Ala His Ala Ala Leu Arg Asp Cys Cys Ser Asp Pro Pro
Cys Ala His Asn Asn Pro Asp Cys Arg
<210> 444
<211>
      16
<212> PRT
<213> Conus emaciatus
<220>
<221> PEPTIDE
<222>
      (1)..(16)
<223> Xaa at residues 6, 7 and 13 is Pro or hydroxy-Pro
<400> 444
Asp Cys Cys Ser Asp Xaa Xaa Cys Ala His Asn Asn Xaa Asp Cys Arg
                                    10
<210> 445
<211> 230
<212> DNA
<213> Conus generalis
<220>
<221> CDS
      (7)..(195)
<222>
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea act act gte
                                                                      48
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
gtt tcc ttc act tca gat cgt ggg tct gat ggc agg aat gcc gca gcc
                                                                      96
Val Ser Phe Thr Ser Asp Arg Gly Ser Asp Gly Arg Asn Ala Ala Ala
aag gac aaa gcg tet gac etg gte get etg ace gte aag gga tge tgt
                                                                     144
Lys Asp Lys Ala Ser Asp Leu Val Ala Leu Thr Val Lys Gly Cys Cys
tct aat cct ccc tgt tac gcg aat aat caa gcc tat tgt aat gga aga
                                                                     192
Ser Asn Pro Pro Cys Tyr Ala Asn Asn Gln Ala Tyr Cys Asn Gly Arg
cgc tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                     230
Arg
<210> 446
<211>
      63
<212>
      PRT
<213> Conus generalis
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<400> 446
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                    10
Phe Thr Ser Asp Arg Gly Ser Asp Gly Arg Asn Ala Ala Ala Lys Asp
Lys Ala Ser Asp Leu Val Ala Leu Thr Val Lys Gly Cys Cys Ser Asn
Pro Pro Cys Tyr Ala Asn Asn Gln Ala Tyr Cys Asn Gly Arg Arg
<210>
      447
<211>
      17
<212> PRT
<213> Conus generalis
<220>
<221> PEPTIDE
<222>
       (1)..(17)
      Xaa at residues 6 and 7 is Pro or hydroxy-Pro; Xaa at residues 9
<223>
       and 15 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr
        or O-phospho-Tyr
Gly Cys Cys Ser Asn Xaa Xaa Cys Xaa Ala Asn Asn Gln Ala Xaa Cys
                                    10
Asn
<210>
      448
<211>
      212
<212>
      DNA
<213> Conus wittigi
<220>
<221> CDS
      (7)..(195)
<222>
<400> 448
                                                                      48
ggated atg ttd acc gtg ttt ctg ttg gtt gtd ctg gda acc act gtd
       Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
       1
                                                                      96
gtt tcc ccc act aga gat cgt gca tct ggt gtc agg aat gtt gta gca
Val Ser Pro Thr Arg Asp Arg Ala Ser Gly Val Arg Asn Val Val Ala
15
                    20
aca age ttt cag act ctg acc cac gat gaa tgc tgt gca cac cct tcc
                                                                     144
Thr Ser Phe Gln Thr Leu Thr His Asp Glu Cys Cys Ala His Pro Ser
                35
                                                        45
                                                                     192
tgt tgg aag gcc gaa gac ctg att tgt act aat caa cgt cgc agg acc
Cys Trp Lys Ala Glu Asp Leu Ile Cys Thr Asn Gln Arg Arg Thr
            50
                                55
                                                                     212
ctc tgaaccacga cctcgag
Leu
```

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<210> 449
<211> 63
<212> PRT
<213> Conus wittigi
<400> 449
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
Pro Thr Arg Asp Arg Ala Ser Gly Val Arg Asn Val Val Ala Thr Ser
                                25
Phe Gln Thr Leu Thr His Asp Glu Cys Cys Ala His Pro Ser Cys Trp
                            40
Lys Ala Glu Asp Leu Ile Cys Thr Asn Gln Arg Arg Thr Leu
<210> 450
<211> 25
<212> PRT
<213> Conus wittigi
<220>
<221> PEPTIDE
<222> (1)..(25)
<223> Xaa at residues 2 and 13 is Glu or gamma-carboxy-Glu; Xaa at resi
      due 7 is Pro or hydroxy-Pro; Xaa at residue 10 is Trp (D or L) or
       bromo-Trp (D or L)
<400> 450
Asp Xaa Cys Cys Ala His Xaa Ser Cys Xaa Lys Ala Xaa Asp Leu Ile
Cys Thr Asn Gln Arg Arg Arg Thr Leu
                                25
           20
<210> 451
<211> 230
<212> DNA
<213> Conus caracteristicus
<220>
<221> CDS
<222> (7)..(195)
<400> 451
ggatee atg tte ace gtg ttt etg ttg gtt gte ttg gea ace act gte
                                                                     48
      Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val
```

10

1

5

```
gtt tcc ttc act tca gat cgt gcg tct gaa ggc agg aat gct gca gcc
                                                                       96
Val Ser Phe Thr Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Ala Ala
aag gac aaa gcg tct gac ctg gtg gct ctg aga gtc agg gga tgc tgt
                                                                     144
Lys Asp Lys Ala Ser Asp Leu Val Ala Leu Arg Val Arg Gly Cys Cys
                35
                                    40
gcc att cgt gaa tgt cgc ttg cag aat gca gcg tat tgt ggt gga ata
                                                                     192
Ala Ile Arg Glu Cys Arg Leu Gln Asn Ala Ala Tyr Cys Gly Gly Ile
                                55
tcc tgatgctcca ggaccctctg aaccacgacc tcgag
                                                                     230
<210> 452
<211>
      63
<212> PRT
<213> Conus caracteristicus
Met Phe Thr Val Phe Leu Leu Val Val Leu Ala Thr Thr Val Val Ser
                                    10
Phe Thr Ser Asp Arg Ala Ser Glu Gly Arg Asn Ala Ala Ala Lys Asp
                                25
Lys Ala Ser Asp Leu Val Ala Leu Arg Val Arg Gly Cys Cys Ala Ile
Arg Glu Cys Arg Leu Gln Asn Ala Ala Tyr Cys Gly Gly Ile Ser
                        55
<210> 453
<211> 20
<212> PRT
<213> Conus caracteristicus
<220>
<221> PEPTIDE
<222>
      (1)..(20)
      Xaa at residue 7 is Glu or gamma-carboxy-Glu; Xaa at residue 15 i
       s Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Tyr or O-ph
      ospho-Tyr
<400> 453
Gly Cys Cys Ala Ile Arg Xaa Cys Arg Leu Gln Asn Ala Ala Xaa Cys
                                    10
Gly Gly Ile Ser
            20
<210>
      454
<211> 568
<212> DNA
<213> Conus betulinus
<220>
<221> CDS
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<222>
       (395)..(508)
<220>
<221>
      misc_feature
<222>
      (1)..(568)
<223>
      n is unknown
<400> 454
agtaattnat atannagaaa gnaananaaa annatanaga atttaagtaa tntaagaann
                                                                   60
gaganagtga atagnagnta agtagannaa ganaggtaga nagnanangn ggangntagn
                                                                  120
taatagatan nntatngaga nattantagc ngtatanana agaaaagagg gnaanngaaa
                                                                  180
tgnngnaann ataantanta nngatngann ngnaagtgnn aagngtanaa ggaanaacaa
                                                                  240
antnqttgtn taatntgnnt gngtgtgtnt gtgtgngtgt gtgtgtgtgn gtgngtgtgt
                                                                  300
                                                                  360
qtqtqtqtq qnqtqtqtqq ttctggatcc agca tct ggt ggc agg aag gct gca
                                                                  415
                                    Ser Gly Gly Arg Lys Ala Ala
                                                                  463
gcc aaa gcg tct aac cgg atc gct ctg acc gtc agg agt gca aca tgc
Ala Lys Ala Ser Asn Arg Ile Ala Leu Thr Val Arg Ser Ala Thr Cys
tgt tat tat cct ccc tgt tac gag gct tat cca gaa agt tgt ctg
                                                                  508
Cys Tyr Tyr Pro Pro Cys Tyr Glu Ala Tyr Pro Glu Ser Cys Leu
                       30
                                                                  568
taacgtgaat catccagacc tttgtggctg aagaccctga tgctccaggg gcaagttcaa
      455
<210>
<211>
      38
<212>
      PRT
<213> Conus betulinus
<400> 455
Ser Gly Gly Arg Lys Ala Ala Ala Lys Ala Ser Asn Arg Ile Ala Leu
Thr Val Arg Ser Ala Thr Cys Cys Tyr Tyr Pro Pro Cys Tyr Glu Ala
Tyr Pro Glu Ser Cys Leu
       35
<210>
      456
<211>
      19
<212>
      PRT
<213> Conus betulinus
<220>
<221> PEPTIDE
<222>
      (1)..(19)
      Xaa at residues 12 and 16 is Glu or gamma-carboxy-Glu; Xaa at res
      idues 8, 9 and 13 is Pro or hydroxy-Pro; Xaa at residues 6, 7, 11
```

and 14 is Tyr, 125I-Tyr, mono-iodo-Tyr, di-iodo-Tyr, O-sulpho-Ty

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r or O-phospho-Tyr
```

<400> 456 Ser Ala Thr Cys Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Ala Xaa Xaa Ser Cys Leu <210> 457 <211> 29 <212> PRT <213> Conus textile Asp Cys Arg Gly Tyr Asp Ala Pro Cys Ser Ser Gly Ala Pro Cys Cys Asp Trp Trp Thr Cys Ser Ala Arg Thr Asn Arg Cys Phe <210> 458 <211> 31 <212> PRT <213> Conus ammiralis <400> 458 Gly Met Trp Gly Asp Cys Lys Asp Gly Leu Thr Thr Cys Phe Ala Pro 10 Ser Glu Cys Cys Ser Glu Asp Cys Glu Gly Ser Cys Thr Met Trp <210> 459 <211> 36 <212> PRT <213> Conus ammiralis <400> 459 Trp Arg Glu Gly Ser Cys Thr Ser Trp Leu Ala Thr Cys Thr Gln Asp Gln Gln Cys Cys Thr Asp Val Cys Tyr Lys Arg Asp Tyr Cys Ala Leu Trp Asp Asp Arg 35 <210> 460 <211> 25 <212> PRT <213> Conus ammiralis <400> 460 Asn Cys Ser Asp Asp Trp Gln Tyr Cys Glu Ser Pro Ser Asp Cys Cys

<210> 461

Ser Trp Asp Cys Asp Val Val Cys Ser

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<211>
       39
<212> PRT
<213> Conus ammiralis
<400> 461
Trp Trp Arg Trp Gly Gly Cys Met Ala Trp Phe Gly Lys Cys Ser Lys
Asp Ser Glu Cys Cys Ser Asn Ser Cys Asp Ile Thr Arg Cys Glu Leu
Met Arg Phe Pro Pro Asp Trp
        35
<210> 462
<211> 29
<212> PRT
<213> Conus ammiralis
<400> 462
Asp Cys Arg Gly Tyr Asp Ala Pro Cys Ser Ser Gly Ala Pro Cys Cys
Asp Trp Trp Thr Cys Ser Ala Arg Thr Gly Arg Cys Phe
<210> 463
<211> 26
<212> PRT
<213> Conus ammiralis
<400> 463
Leu Cys Pro Asp Tyr Thr Glu Pro Cys Ser His Ala His Glu Cys Cys
Ser Trp Asn Cys His Asn Gly His Cys Thr
<210> 464
<211> 27
<212> PRT
<213> Conus ammiralis
<400> 464
Cys Ser Ser Trp Ala Lys Tyr Cys Glu Val Asp Ser Glu Cys Cys Ser
                5
                                                        15
                                    10
Glu Gln Cys Val Arg Ser Tyr Cys Ala Met Trp
<210> 465
<211> 32
<212> PRT
<213> Conus pennaceus
<220>
<221>
      PEPTIDE
<222>
      (1)..(32)
<223> Xaa at residues 14 and 26 is gamma-carboxy-Glu; Xaa at residue 31
        is hydroxy-Pro
```

```
<400> 465
Asp Cys Thr Ser Trp Phe Gly Arg Cys Thr Val Asn Ser Xaa Cys Cys
Ser Asn Ser Cys Asp Gln Thr Tyr Cys Xaa Leu Tyr Ala Phe Xaa Ser
<210> 466
<211> 32
<212> PRT
<213> Conus gloriamaris
<400> 466
Glu Cys Arg Ala Trp Tyr Ala Pro Cys Ser Pro Gly Ala Gln Cys Cys
Ser Leu Leu Met Cys Ser Lys Ala Thr Ser Arg Cys Ile Leu Ala Leu
                               25
<210> 467
<211> 27
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222>
      (1)..(27)
<223> Xaa is gamma-carboxy-Glu
<400> 467
Cys Lys Thr Tyr Ser Lys Tyr Cys Xaa Ala Asp Ser Xaa Cys Cys Thr
Xaa Gln Cys Val Arg Ser Tyr Cys Thr Leu Phe
                               25
<210> 468
<211> 29
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222>
      (1)..(29)
<223> Xaa is gamma-carboxy-Glu
<400> 468
Asn Gly Gln Cys Glu Asp Val Trp Met Pro Cys Thr Ser Asn Trp Xaa
                                                       15
Cys Cys Ser Leu Asp Cys Glu Met Tyr Cys Thr Gln Ile
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<210> 469
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<211>
<212> PRT
<213> Conus marmoreus
<220>
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<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is gamma-carboxy-Glu
<400> 469
Cys Gly Gly Trp Ser Thr Tyr Cys Glu Val Asp Glu Xaa Cys Cys Ser
Glu Ser Cys Val Arg Ser Tyr Cys Thr Leu Phe
<210> 470
<211> 26
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222>
      (1)..(26)
<223> Xaa is gamma-carboxy-Glu
<400> 470
Asn Gly Gly Cys Lys Ala Thr Trp Met Ser Cys Ser Ser Gly Trp Xaa
Cys Cys Ser Met Ser Cys Asp Met Tyr Cys
<210> 471
<211> 33
<212> PRT
<213> Conus radiatus
<220>
<221>
      PEPTIDE
<222>
      (1)..(33)
<223> Xaa at residues 1, 10 and 33 is bromo-Trp; Xaa at residues 5, 6,
       15 and 26 is gamma-carboxy-Glu
<400> 471
Xaa Phe Gly His Xaa Xaa Cys Thr Tyr Xaa Leu Gly Pro Cys Xaa Val
Asp Asp Thr Cys Cys Ser Ala Ser Cys Xaa Ser Lys Phe Cys Gly Leu
Xaa
<210> 472
<211> 31
<212> PRT
<213> Conus radiatus
<400> 472
Trp Trp Glu Gly Glu Cys Ser Asn Trp Leu Gly Ser Cys Ser Thr Pro
Ser Asn Cys Cys Leu Lys Ser Cys Asn Gly His Cys Thr Leu Trp
            20
                                25
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<210> 473
<211> 26
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (1)..(26)
<223> Xaa at residues 3 and 8 is hydroxy-Pro; Xaa at residues 7 and 14
       is gamma-carboxy-Glu
<400> 473
Leu Cys Xaa Asp Tyr Thr Xaa Xaa Cys Ser His Ala His Xaa Cys Cys
Ser Trp Asn Cys Tyr Asn Gly His Cys Thr
<210> 474
<211> 28
<212> PRT
<213> Conus textile
Asp Cys Tyr Ser Trp Leu Gly Ser Cys Ile Ala Pro Ser Gln Cys Cys
Ser Glu Val Cys Asp Tyr Tyr Cys Arg Leu Trp Arg
<210> 475
<211> 34
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (1)..(34)
<223> Xaa is gamma-carboxy-Glu
<400> 475
Trp Leu Glu Cys Ser Val Trp Phe Ser His Cys Thr Lys Asp Ser Xaa
                                   10
Cys Cys Ser Asn Ser Cys Asp Gln Thr Tyr Cys Thr Leu Met Pro Pro
Asp Trp
<210> 476
<211> 31
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (1)..(31)
<223> Xaa is gamma-carboxy-Glu
<400> 476
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Gly Met Trp Gly Glu Cys Lys Asp Gly Leu Thr Thr Cys Leu Ala Pro
Ser Xaa Cys Cys Ser Glu Asp Cys Glu Gly Ser Cys Thr Met Trp
<210> 477
<211>
       34
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222> (1)..(34)
<223> Xaa is gamma-carboxy-Glu
<400> 477
Asp Trp Trp Asp Asp Gly Cys Ser Val Trp Gly Pro Cys Thr Val Asn
Ala Xaa Cys Cys Ser Gly Asp Cys His Glu Thr Cys Ile Phe Gly Trp
Glu Val
<210> 478
<211> 39
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
<222>
      (1)..(39)
<223> Xaa is gamma-carboxy-Glu
<400> 478
Trp Trp Arg Trp Gly Gly Cys Met Ala Trp Phe Gly Leu Cys Ser Arg
Asp Ser Xaa Cys Cys Ser Asn Ser Cys Asp Val Thr Arg Cys Glu Leu
Met Pro Phe Pro Pro Asp Trp
        35
<210> 479
<211> 27
<212> PRT
<213> Conus textile
<220>
<221> PEPTIDE
      (1)..(27)
<223> Xaa is gamma-carboxy-Glu
<400> 479
Cys Gly Gly Tyr Ser Thr Tyr Cys Xaa Val Asp Ser Xaa Cys Cys Ser
                5
                                    10
                                                        15
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Asp Asn Cys Val Arg Ser Tyr Cys Thr Leu Phe

<210> 480

<211> 43

<212> PRT

<213> Conus caracteristicus

<400> 480

Gly Cys Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly 1 5 10 15

Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His 20 25 30

His Phe Tyr Arg Gly Cys Thr Cys Ser Cys Gln 35 40

<210> 481

<211> 42

<212> PRT

<213> Conus caracteristicus

<400> 481

Gly Cys Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly
1 5 10 15

Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His
20 25 30

His Phe Tyr Arg Gly Cys Thr Cys Thr Cys 35 40

<210> 482

<211> 42

<212> PRT

<213> Conus caracteristicus

<400> 482

Gly Cys Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly 1 5 10 15

Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His
20 25 30

His Phe Tyr Arg Gly Cys Thr Cys Thr Cys 35 40

<210> 483

<211> 42

<212> PRT

<213> Conus caracteristicus

<400> 483

Gly Cys Ser Gly Thr Cys Arg Arg His Arg Asp Gly Lys Cys Arg Gly
1 5 10 15

Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His
20 25 30

His Phe Tyr Arg Gly Cys Thr Cys Thr Cys

35 40 <210> 484 <211> 42 <212> PRT <213> Conus caracteristicus <400> 484 Gly Cys Ser Gly Thr Cys His Arg Arg Glu Asp Gly Lys Cys Arg Gly Thr Cys Asp Cys Ser Gly Tyr Ser Tyr Cys Arg Cys Gly Asp Ala His His Phe Tyr Arg Gly Cys Thr Cys Thr Cys <210> 485 <211> 42 PRT <212> <213> Conus caracteristicus <400> 485 Gly Cys Ser Gly Thr Cys His Arg Arg Gln Asn Gly Glu Cys Gln Gly Thr Cys Asp Cys Asp Gly His Asp His Cys Asp Cys Gly Asp Thr Leu Gly Thr Tyr Ser Gly Cys Val Cys Ile Cys <210> 486 <211> 45 <212> PRT <213> Conus lacterculatus <400> 486 Gln Ser Glu Thr Ala Cys Arg Ser Leu Gly Ser Tyr Gln Cys Met Gly Lys Cys Gln Leu Gly Val His Ser Trp Cys Glu Cys Ile Tyr Asn Arg Gly Ser Gln Lys Ser Gly Cys Ala Cys Arg Cys Gln Lys <210> 487 <211> 48 <212> PRT <213> Conus monachus <400> 487 Gln Cys Thr Leu Val Asn Asn Cys Asp Arg Asn Gly Glu Arg Ala Cys Asn Gly Asp Cys Ser Cys Glu Gly Gln Ile Cys Lys Cys Gly Tyr Arg 20 30

Val Ser Pro Gly Lys Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys

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35
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<210>
       488
<211>
       41
<212>
       PRT
<213> Conus purpurascens
<400> 488
Gly Cys Ser Gly Ser Pro Cys Phe Lys Asn Lys Thr Cys Arg Asp Glu
Cys Ile Cys Gly Gly Leu Ser Asn Cys Trp Cys Gly Tyr Gly Gly Ser
Arg Gly Cys Lys Cys Thr Cys Arg Glu
<210> 489
<211>
      47
<212> PRT
      Conus radiatus
<400> 489
Lys Cys Asn Phe Asp Lys Cys Lys Gly Thr Gly Val Tyr Asn Cys Gly
                                    10
Glu Ser Cys Ser Cys Glu Gly Leu His Ser Cys Arg Cys Thr Tyr Asn
            20
Ile Gly Ser Met Lys Ser Gly Cys Ala Cys Ile Cys Thr Tyr Tyr
                            40
<210> 490
<211>
      44
<212> PRT
<213> Conus radiatus
<400> 490
Tyr Gly Leu Gly Cys Ala Gly Thr Cys Gly Ser Ser Ser Asn Cys Val
Arg Asp Tyr Cys Asp Cys Pro Lys Pro Asn Cys Tyr Cys Thr Gly Lys
Gly Phe Arg Gln Pro Gly Cys Gly Cys Ser Cys Leu
                            40
<210> 491
<211>
      46
<212>
      PRT
<213> Conus striolatus
<400> 491
Gln Cys Thr Phe Val Asn Asn Cys Gln Gln Asn Gly Cys Ala Asn Gly
Asp Cys Ser Cys Gly Asp Gln Ile Cys Lys Cys Gly Tyr Arg Ile Ser
                                25
Pro Gly Arg Ser Gly Cys Ala Cys Thr Cys Arg Asn Ala Lys
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<210> 492
<211> 44
<212> PRT
<213> Conus tulipa
<400> 492
Phe Gly Pro Ile Cys Thr Cys Phe Lys Ser Gln Asn Cys Arg Gly Ser
Cys Glu Cys Met Ser Pro Pro Gly Cys Tyr Cys Ser Asn Asn Gly Ile
Arg Glu Arg Gly Cys Ser Cys Thr Cys Pro Gly Thr
<210> 493
<211> 46
<212> PRT
<213> Conus tulipa
<400> 493
Gly Cys Thr Gly Asn Cys Asp Trp Thr Cys Ser Gly Asp Cys Ser Cys
Gln Gly Thr Ser Asp Ser Cys His Cys Ile Pro Pro Lys Ser Ile Gly
Asn Arg Cys Arg Cys Gln Cys Lys Arg Lys Ile Glu Ile Asp
                            40
<210> 494
<211> 15
<212> PRT
<213> Conus textile
<400> 494
Glu Cys Cys Glu Asp Gly Trp Cys Cys Thr Ala Ala Pro Leu Thr
                                   10
<210> 495
<211> 15
<212> PRT
<213> Conus textile
Gly Cys Cys Glu Asp Gly Trp Cys Cys Thr Ala Ala Pro Leu Thr
<210> 496
<211> 20
<212> PRT
<213> Conus marmoreus
<400> 496
Asn Gly Cys Cys Arg Ala Gly Asp Cys Cys Ser Arg Phe Glu Ile Lys
Glu Asn Asp Phe
            20
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<210> 497
<211> 11
<212> PRT
<213> Conus marmoreus
<400> 497
Asn Gly Cys Cys Arg Ala Gly Asp Cys Cys Ser
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<210> 498
<211> 10
<212> PRT
<213> Conus marmoreus
<400> 498
Asn Ala Cys Cys Ile Val Arg Gln Cys Cys
<210> 499
<211> 10
<212> PRT
<213> Conus quercinus
<400> 499
Gly Cys Cys Ala Arg Leu Thr Cys Cys Val
<210> 500
<211> 10
<212> PRT
<213> Conus quercinus
<400> 500
Gly Cys Cys Ala Met Leu Thr Cys Cys Val
<210> 501
<211> 12
<212> PRT
<213> Conus purpurascens
<400> 501
Gly Cys Cys Pro Lys Gln Met Arg Cys Cys Thr Leu
<210> 502
<211> 11
<212> PRT
<213> Conus caracteristicus
<400> 502
Cys Cys Pro Arg Arg Leu Ala Cys Cys Ile Ile
                5
<210> 503
<211> 10
<212> PRT
<213> Conus caracteristicus
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<400> 503
Cys Cys Pro Asn Lys Pro Cys Cys Phe Ile
<210> 504
<211> 13
<212> PRT
<213> Conus geographus
<400> 504
Glx Gly Trp Cys Cys Lys Glu Asn Ile Ala Cys Cys Ile
<210> 505
<211> 13
<212> PRT
<213> Conus geographus
<400> 505
Glx Gly Trp Cys Cys Lys Glu Asn Ile Ala Cys Cys Val
<210> 506
<211> 15
<212> PRT
<213> Conus imperialis
<400> 506
Asp Trp Asn Ser Cys Cys Gly Lys Asn Pro Gly Cys Cys Pro Trp
<210> 507
<211> 11
<212> PRT
<213> Conus betulinus
<400> 507
Asn Cys Cys Pro Asp Ser Pro Pro Cys Cys His
<210> 508
<211> 12
<212> PRT
<213> Conus ammiralis
<400> 508
Gly Asn Cys Cys Glu Phe Trp Glu Phe Cys Cys Asp
               5
<210> 509
<211> 9
<212> PRT
<213> Conus dalli
<400> 509
Cys Cys Glu Tyr Trp Lys Leu Cys Cys
<210> 510
<211> 11
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<212> PRT
<213> Conus omaria
<400> 510
Val Cys Cys Gly Tyr Lys Phe Phe Cys Cys Arg
<210> 511
<211> 11
<212> PRT
<213> Conus aulicus
<400> 511
Phe Cys Cys Pro Val Ile Arg Tyr Cys Cys Trp
   5
<210> 512
<211> 11
<212> PRT
<213> Conus aulicus
<400> 512
Phe Cys Cys Pro Phe Ile Arg Tyr Cys Cys Trp
               5
<210> 513
<211> 10
<212> PRT
<213> Conus aulicus
<400> 513
Cys Cys Pro Met Ile Tyr Trp Cys Cys Ser
<210> 514
<211> 10
<212> PRT
<213> Conus aulicus
<400> 514
Cys Cys Pro Glu Ile Tyr Trp Cys Cys Ser
<210> 515
<211> 10
<212> PRT
<213> Conus nobilis
<400> 515
Ile Cys Cys Pro Ile Ile Leu Trp Cys Cys
               5
<210> 516
<211> 9
<212> PRT
<213> Conus ammiralis
<400> 516
Cys Cys Pro Pro Val Ile Trp Cys Cys
               5
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<210> 517
<211> 11
<212> PRT
<213> Conus textile
<400> 517
Cys Cys Gln Thr Phe Tyr Trp Cys Cys Val Gln
<210> 518
<211> 13
<212> PRT
<213> Conus aulicus
<400> 518
Trp Asn Asn Tyr Cys Cys Thr Asn Glu Leu Trp Cys Cys
<210> 519
<211> 13
<212> PRT
<213> Conus gloriamaris
<400> 519
Leu Cys Cys Val Thr Glu Asp Trp Cys Cys Glu Trp Trp
<210> 520
<211> 11
<212> PRT
<213> Conus gloriamaris
<400> 520
Val Cys Cys Arg Pro Val Gln Asp Cys Cys Ser
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<210> 521
<211> 13
<212> PRT
<213> Conus dalli
<400> 521
Pro Val Asn Cys Cys Pro Ile Asp Gln Ser Cys Cys Ser
<210> 522
<211> 17
<212> PRT
<213> Conus spurius
<400> 522
Gly Asn Ile His Cys Cys Thr Lys Tyr Gln Pro Cys Cys Ser Ser Pro
                5
Ser
<210> 523
<211> 12
<212> PRT
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<213> Conus textile
<400> 523
Glx Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
<210> 524
<211> 11
<212> PRT
<213> Conus bandanus
<400> 524
Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
<210> 525
<211> 13
<212> PRT
<213> Conus pennaceus
<400> 525
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
<210> 526
<211> 13
<212> PRT
<213> Conus pennaceus
<400> 526
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Ser
<210> 527
<211> 12
<212> PRT
<213> Conus pennaceus
<400> 527
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys
<210> 528
<211> 12
<212> PRT
<213> Conus episcopatus
<400> 528
Ser Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
               5
<210> 529
<211> 13
<212> PRT
<213> Conus marmoreus
<400> 529
Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Leu Pro Cys
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<210> 530
<211> 12
<212> PRT
<213> Conus pennaceus
<400> 530
Leu Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
<210> 531
<211> 13
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222> (1)..(13)
<223> Xaa is hydroxy-Pro
Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
<210> 532
<211> 12
<212> PRT
<213> Conus marmoreus
<220>
<221> PEPTIDE
<222> (1)..(12)
<223> Xaa is hydroxy-Pro
<400> 532
Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
<210> 533
<211> 11
<212> PRT
<213> Conus bandanus
<400> 533
Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
<210> 534
<211> 12
<212> PRT
<213> Conus aulicus
<400> 534
Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe Pro Cys
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<210> 535
<211> 13
<212> PRT
<213> Conus textile
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<400> 535
Asn Gly Val Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
<210> 536
<211> 12
<212> PRT
<213> Conus textile
<400> 536
Glx Thr Cys Cys Gly Tyr Arg Met Cys Val Pro Cys
<210> 537
<211> 12
<212> PRT
<213> Conus ammiralis
<400> 537
Glx Ala Cys Cys Gly Phe Lys Met Cys Val Pro Cys
<210> 538
<211> 13
<212> PRT
<213> Conus pennaceus
<400> 538
Ser Thr Cys Cys Gly Phe Lys Met Cys Ile Pro Cys Arg
                5
<210> 539
<211> 14
<212> PRT
<213> Conus pennaceus
<400> 539
Asn Gly Val Cys Cys Gly Phe Trp Met Cys Ile Pro Cys Asn
<210> 540
<211> 12
<212> PRT
<213> Conus omaria
<400> 540
Asp Val Cys Cys Tyr Val Arg Met Cys Pro Cys Arg
                5
<210> 541
<211> 7
<212> PRT
<213> Conus imperialis
<400> 541
Glx Cys Gly Gln Ala Trp Cys
<210> 542
<211> 8
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<212> PRT
<213> Conus stercusmuscarum
<220>
<221> PEPTIDE
<222> (1)..(8)
<223> Xaa is hydroxy-Pro
<400> 542
Gly Cys Xaa Trp Gln Pro Val Cys
<210> 543
<211> 11
<212> PRT
<213> Conus arenatus
<220>
<221> PEPTIDE
      (1)..(11)
<222>
<223> Xaa is hydroxy-Pro
Glx Tyr Gly Cys Xaa Xaa Gly Leu Trp Cys His
<210> 544
<211> 10
<212> PRT
<213> Conus arenatus
<400> 544
Ala Ser Gly Cys Pro Trp Arg Pro Trp Cys
<210> 545
<211> 11
<212> PRT
<213> Conus arenatus
<400> 545
Glx Tyr Gly Cys Pro Val Gly Leu Trp Cys Asp
<210> 546
<211> 9
<212> PRT
<213> Conus arenatus
<400> 546
Ser Gly Cys Pro Trp Gln Pro Trp Cys
<210> 547
<211> 9
<212> PRT
<213> Conus arenatus
<400> 547
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Ser Gly Cys Pro Trp His Pro Trp Cys
<210> 548
<211> 30
<212> PRT
<213> Conus ermineus
<220>
<221> PEPTIDE
<222> (1)..(30)
<223> Xaa is hydroxy-Pro
<400> 548
Gly Cys Cys Gly Lys Tyr Xaa Asn Ala Ala Cys His Xaa Cys Gly Cys
                                   10
Thr Val Gly Arg Xaa Xaa Tyr Cys Asp Arg Xaa Ser Gly Gly
                                25
<210> 549
<211> 25
<212> PRT
<213> Conus purpurascens
<400> 549
Gly Cys Cys Gly Ser Tyr Pro Asn Ala Ala Cys His Pro Cys Gly Cys
                                   10
Lys Asp Arg Pro Ser Tyr Cys Gly Gln
<210> 550
<211>
      23
<212> PRT
<213> Conus purpurascens
<400> 550
Glu Gly Cys Cys Ser Asn Pro Ala Cys His Pro Cys Gly Cys Lys Asp
Arg Pro Ser Tyr Cys Gly Gln
           20
<210>
      551
<211>
      32
<212> PRT
<213> Conus arenatus
<400> 551
Val Val Thr Glu Ala Cys Glu Glu Ser Cys Glu Glu Glu Glu Lys His
Cys Cys His Val Asn Asn Gly Val Pro Ser Cys Ala Val Ile Cys Trp
<210>
      552
<211>
      32
<212> PRT
<213> Conus arenatus
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<400> 552
Ile Val Thr Glu Ala Cys Glu Glu Ser Cys Glu Asp Glu Glu Lys His
Cys Cys His Val Asn Asn Gly Val Pro Ser Cys Ala Val Ile Cys Trp
<210> 553
<211> 32
<212> PRT
<213> Conus arenatus
<400> 553
Ile Val Thr Glu Ala Cys Glu Glu His Cys Glu Asp Glu Glu Gln Phe
Cys Cys Gly Leu Glu Asn Gly Gln Pro Phe Cys Ala Pro Val Cys Phe
<210> 554
<211> 32
<212> PRT
<213> Conus arenatus
<400> 554
Val Val Thr Gly Ala Cys Glu Glu His Cys Glu Asp Glu Glu Lys His
Cys Cys Gly Leu Glu Asn Gly Gln Pro Phe Cys Ala Arg Leu Cys Leu
                                25
<210> 555
      32
<211>
<212> PRT
<213> Conus distans
<400> 555
Asn Val Asp Gln Glu Cys Ile Asp Ala Cys Gln Leu Glu Asp Lys Asn
Cys Cys Gly Arg Thr Asp Gly Glu Pro Arg Cys Ala Lys Ile Cys Leu
                                25
<210> 556
<211>
      32
<212> PRT
<213> Conus distans
<400> 556
Glu Thr Asp Gln Glu Cys Ile Asp Ile Cys Lys Gln Glu Asp Lys Lys
Cys Cys Gly Arg Ser Asn Gly Glu Pro Thr Cys Ala Lys Ile Cys Leu
<210> 557
<211>
      32
<212> PRT
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<213> Conus distans

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<400> 557
Glu Thr Asp Gln Glu Cys Ile Asp Thr Cys Glu Gln Glu Asp Lys
Cys Cys Gly Arg Thr Asn Gly Glu Pro Val Cys Ala Lys Ile Cys Phe
<210> 558
<211> 37
<212> PRT
<213> Conus purpurascens
<400> 558
Pro Lys Thr Glu Ala Cys Glu Glu Val Cys Glu Leu Glu Glu Lys His
Cys Cys Cys Ile Arg Ser Asp Gly Pro Lys Cys Ser Arg Lys Cys Leu
Leu Ser Ile Phe Cys
        35
<210> 559
<211> 32
<212> PRT
<213> Conus purpurascens
<400> 559
Val Val Ser Glu Glu Cys Lys Lys Tyr Cys Lys Lys Gln Asn Lys Asn
Cys Cys Ser Ser Lys His Glu Glu Pro Arg Cys Ala Lys Ile Cys Phe
<210> 560
<211> 32
<212> PRT
<213> Conus sponsalis
<400> 560
Ala Val Thr Glu Ala Cys Thr Glu Asp Cys Lys Thr Gln Asp Lys Lys
Cys Cys Gly Glu Met Asn Gly Gln His Thr Cys Ala Lys Ile Cys Leu
<210> 561
<211> 37
<212> PRT
<213> Conus tulipa
Pro Lys Thr Lys Glu Cys Glu Arg Tyr Cys Glu Leu Glu Glu Lys His
Cys Cys Cys Ile Arg Ser Asn Gly Pro Lys Cys Ser Arg Ile Cys Ile
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Phe Lys Phe Trp Cys

35 <210> 562 <211> 36 <212> PRT <213> Conus tulipa <400> 562 Pro Lys Thr Arg Glu Cys Glu Met Gln Cys Glu Glu Glu Lys His 10 Cys Cys Arg Val Arg Asp Gly Thr Gly Gln Cys Ala Pro Lys Cys Leu 25 Gly Ile Asn Trp 35 <210> 563 <211> 9 <212> PRT <213> Conus geographus <400> 563 Cys Phe Ile Arg Asn Cys Pro Lys Gly <210> 564 <211> 9 <212> PRT <213> Conus striatus <400> 564 Cys Ile Ile Arg Asn Cys Pro Arg Gly <210> 565 <211> 28 <212> PRT <213> Conus arenatus <400> 565 Gly Cys Thr Pro Pro Gly Gly Val Cys Gly Tyr His Gly His Cys Cys 10 15 Asp Phe Cys Asp Thr Phe Gly Asn Leu Cys Val Ser 20 <210> 566 <211> 27 <212> PRT <213> Conus geographus <400> 566 Ala Cys Ser Gly Arg Gly Ser Arg Cys Pro Pro Gln Cys Cys Met Gly 10 Leu Thr Cys Gly Arg Glu Tyr Pro Pro Arg Cys 20 <210> 567

<211>

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<212> PRT
<213> Conus caracteristicus
<400> 567
Asn Cys Gly Glu Gln Gly Glu Gly Cys Ala Thr Arg Pro Cys Cys Ser
Gly Leu Ser Cys Val Gly Ser Arg Pro Gly Gly Leu Cys Gln Tyr
<210> 568
<211> 23
<212> PRT
<213> Conus textile
<400> 568
Asn Cys Pro Tyr Cys Val Val Tyr Cys Cys Pro Pro Ala Tyr Cys Glu
                                   10
Ala Ser Gly Cys Arg Pro Pro
           20
<210> 569
<211> 27
<212> PRT
<213> Conus delesstii
<220>
<221> PEPTIDE
<222>
      (1)..(27)
<223> Xaa at residue 4 is hydroxy-Pro; Xaa at residues 13 and 16 is gam
      m-carboxy-Glu
<400> 569
Ala Cys Lys Xaa Lys Asn Asn Leu Cys Ala Ile Thr Xaa Met Ala Xaa
Cys Cys Ser Gly Phe Cys Leu Ile Tyr Arg Cys
           20
<210> 570
<211> 30
<212> PRT
<213> Conus lividus
Ser Cys Gly His Ser Gly Ala Gly Cys Tyr Thr Arg Pro Cys Cys Pro
Gly Leu His Cys Ser Gly Gly Gln Ala Gly Gly Leu Cys Val
<210>
     571
<211> 35
<212> PRT
<213> Conus lividus
<400> 571
Asp Cys Gly Glu Ser Gly Gln Gly Cys Tyr Ser Val Arg Pro Cys Cys
                                   10
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Pro Gly Leu Ile Cys Lys Gly Thr Gly Gly Gly Leu Cys Arg Pro
                               25
Ser Gly Ile
       35
<210> 572
<211> 31
<212> PRT
<213> Conus miliaris
<400> 572
Cys Thr Pro Pro Gly Gly Leu Cys Tyr His Ala Tyr Pro Cys Cys Ser
Lys Thr Cys Asn Leu Asp Thr Ser Gln Cys Glu Pro Arg Trp Ser
                               25
<210> 573
<211>
      36
<212> PRT
<213> Conus miles
<400> 573
Cys Thr Asp Asp Ser Gln Phe Cys Asn Pro Ser Asn His Asp Cys Cys
Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile Cys Ala Ile Val
Pro Glu Asn Ser
       35
<210> 574
<211> 36
<212> PRT
<213> Conus miles
<400> 574
Cys Thr Glu Asp Ser Gln Phe Cys Asn Pro Ser Asn His Asp Cys Cys
Ser Gly Lys Cys Ile Asp Glu Gly Asp Asn Gly Ile Cys Ala Ile Val
Pro Glu Asn Ser
       35
<210> 575
<211>
      30
<212> PRT
<213> Conus pulicarius
<400> 575
Cys Ser Asp Phe Gly Ser Asp Cys Val Pro Ala Thr His Asn Cys Cys
Ser Gly Glu Cys Phe Gly Phe Glu Asp Phe Gly Leu Cys Thr
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<210> 576
<211> 30
<212> PRT
<213> Conus quercinus
<400> 576
Ala Cys Ser Gln Val Gly Glu Ala Cys Phe Pro Gln Lys Pro Cys Cys
Pro Gly Phe Leu Cys Asn His Ile Gly Gly Met Cys His His
<210> 577
<211> 28
<212> PRT
<213> Conus striatus
<400> 577
Cys Leu Pro Asp Gly Thr Ser Cys Leu Phe Ser Arg Ile Arg Cys Cys
Gly Thr Cys Ser Ser Ile Leu Lys Ser Cys Val Ser
<210> 578
<211> 31
<212> PRT
<213> Conus tessulatus
<400> 578
Ser Cys Ala Glu Phe Gly Glu Val Cys Ser Ser Thr Ala Cys Cys Pro
Asp Leu Asp Cys Val Glu Ala Tyr Ser Pro Ile Cys Leu Trp Glu
           20
<210> 579
<211> 27
<212> PRT
<213> Conus textile
<400> 579
Lys Cys Val Glu Gln Trp Lys Tyr Cys Thr Arg Glu Ser Leu Cys Cys
Ala Gly Leu Cys Leu Phe Ser Phe Cys Ile Leu
           20
<210> 580
<211> 29
<212> PRT
<213> Conus textile
<400> 580
Cys Val Glu Gln Trp Glu Val Cys Gly Ile Ile Leu Phe Ser Ser Ser
Cys Cys Gly Gln Leu Cys Leu Phe Gly Phe Cys Val Leu
```

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<210> 581
<211> 32
<212> PRT
<213> Conus virgo
<400> 581
Asp Cys Gly Gly Gln Gly Glu Gly Cys Tyr Thr Gln Pro Cys Cys Pro
Gly Leu Arg Cys Arg Gly Gly Gly Thr Gly Gly Gly Val Cys Gln Leu
<210> 582
<211> 33
<212> PRT
<213> Conus wittigi
<400> 582
Phe Gly Ser Phe Ile Pro Cys Ala Arg Leu Gly Glu Pro Cys Thr Ile
Cys Cys Arg Pro Leu Arg Cys Arg Glu Ser Gly Thr Pro Thr Cys Gln
Val
<210> 583
<211> 30
<212> PRT
<213> Conus regius
<400> 583
Thr Cys Leu Glu His Asn Lys Leu Cys Trp Tyr Asp Arg Asp Cys Cys
Thr Ile Tyr Cys Asn Glu Asn Lys Cys Gly Val Lys Pro Gln
<210> 584
<211> 34
<212> PRT
<213> Conus radiatus
<400> 584
Ala Cys Lys Ser Asn Tyr Asp Cys Pro Gln Arg Phe Lys Cys Cys Ser
Tyr Thr Trp Asn Gly Ser Ser Gly Tyr Cys Lys Arg Val Cys Tyr Leu
Tyr Arg
<210> 585
<211> 24
<212> PRT
<213> Conus purpurascens
<220>
<221> PEPTIDE
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<222> (1)..(24)
<223> Xaa is hydroxy-Pro
<400> 585
Gly Xaa Xaa Cys Cys Leu Tyr Gly Ser Cys Arg Xaa Phe Xaa Gly Cys
                                   10
Tyr Asn Ala Leu Cys Cys Arg Lys
<210> 586
<211> 24
<212> PRT
<213> Conus purpurascens
<400> 586
His Pro Pro Cys Cys Met Tyr Gly Arg Cys Arg Arg Tyr Pro Gly Cys
                                   10
Ser Ser Ala Ser Cys Cys Gln Gly
           20
<210> 587
<211> 36
<212> PRT
<213> Conus consors
Ala Pro Glu Leu Val Val Thr Ala Thr Thr Cys Cys Gly Tyr Asp
Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser Cys Pro Pro
                               25
Lys Arg Lys Pro
       35
<210> 588
<211> 39
<212> PRT
<213> Conus aurisiacus
<400> 588
Glx Ser Trp Leu Val Pro Ser Thr Ile Thr Thr Cys Cys Gly Tyr Asp
Pro Gly Thr Met Cys Pro Pro Cys Arg Cys Asn Asn Thr Cys Lys Pro
Lys Lys Pro Lys Pro Gly Lys
<210> 589
<211> 37
<212> PRT
<213> Conus consors
<400> 589
Ala Pro Glu Leu Val Val Thr Ala Thr Thr Cys Cys Gly Tyr Asp
               5
                                                       15
```

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Pro Met Thr Trp Cys Pro Ser Cys Met Cys Thr Tyr Ser Cys Pro His
Gln Arg Lys Lys Pro
       35
<210> 590
<211> 36
<212> PRT
<213> Conus magus
<400> 590
Ala Pro Glu Leu Val Val Thr Ala Thr Thr Thr Cys Cys Gly Tyr Asp
Pro Met Thr Ile Cys Pro Pro Cys Met Cys Thr His Ser Cys Pro Pro
                                25
Lys Gly Lys Pro
<210> 591
<211> 38
<212> PRT
<213> Conus aurisiacus
<400> 591
Glx Lys Trp Leu Val His Ser Lys Ile Thr Tyr Cys Cys Gly Tyr Asn
Lys Met Asp Met Cys Pro Pro Cys Met Cys Thr Tyr Ser Cys Pro Pro
Leu Lys Lys Lys Arg Pro
       35
<210> 592
<211> 29
<212> PRT
<213> Conus aurisiacus
Ala Pro Trp Thr Val Val Thr Ala Thr Thr Asn Cys Cys Gly Ile Thr
Gly Pro Gly Cys Leu Pro Cys Arg Cys Thr Gln Thr Cys
            20
                                25
<210> 593
<211> 13
<212> PRT
<213> Conus geographus
<400> 593
Glu Cys Cys His Pro Ala Cys Gly Lys His Tyr Ser Cys
                                    10
<210> 594
<211> 13
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<212> PRT
<213> Conus geographus
<400> 594
Glu Cys Cys Asn Pro Ala Cys Gly Arg His Phe Ser Cys
<210> 595
<211> 22
<212> PRT
<213> Conus striatus
<400> 595
Ala Tyr Cys Cys His Pro Ala Cys Gly Pro Asn Tyr Ser Cys Gly Thr
Ser Cys Ser Arg Thr Leu
            20
<210> 596
<211> 14
<212> PRT
<213> Conus striatus
<400> 596
Ala Tyr Cys Cys His Pro Val Cys Gly Lys Asn Phe Asp Cys
<210> 597
<211> 22
<212> PRT
<213> Conus rattus
<400> 597
Gly Cys Cys Cys Asn Pro Ala Cys Gly Pro Asn Tyr Gly Cys Gly Thr
                5
Ser Cys Ser Arg Thr Leu
           20
<210> 598
<211> 22
<212> PRT
<213> Conus arenatus
Glx Asp Tyr Cys Cys Thr Ile Pro Ser Cys Trp Asp Arg Tyr Lys Glu
                                    10
Arg Cys Arg His Ile Arg
            20
<210> 599
<211> 22
<212> PRT
<213> Conus eburneus
<400> 599
Glx Asp Tyr Cys Cys Thr Ile Pro Ser Cys Trp Asp Arg Tyr Lys Glu
                5
```

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Arg Cys Arg His Ile Arg
    20
<210> 600
<211> 13
<212> PRT
<213> Conus miles
<400> 600
Asp Tyr Cys Cys His Arg Gly Pro Cys Met Val Trp Cys
<210> 601
<211> 13
<212> PRT
<213> Conus jDedius
<400> 601
Gly Cys Cys Ser Asp Pro Arg Cys Arg Tyr Arg Cys Arg
                               10
<210> 602
<211> 17
<212> PRT
<213> Conus omaria
<400> 602
Gly Cys Cys Ser His Pro Ala Cys Asn Val Asn Asn Pro His Ile Cys
           5
                               10
Gly
<210> 603
<211> 17
<212> PRT
<213> Conus omaria
<400> 603
Gly Cys Cys Ser His Pro Ala Cys Asn Val Asn Asn Pro His Ile Cys
               5
Gly
<210> 604
<211> 19
<212> PRT
<213> Conus quercinus
<400> 604
Glx Gly Cys Cys Ser Asp Pro Ala Cys Ala Val Ser Asn Pro Asp Ile
               5
                                   10
                                                      15
Cys Gly Gly
<210> 605
<211> 17
<212> PRT
<213> Conus bandanus
```

```
<400> 605
Pro Glu Cys Cys Thr His Pro Ala Cys His Val Ser His Pro Glu Leu
Cys
<210> 606
<211> 17
<212> PRT
<213> Conus marmoreus
<400> 606
Pro Glu Cys Cys Thr His Pro Ala Cys His Val Ser Asn Pro Glu Leu
                                    10
Cys
<210> 607
<211> 15
<212> PRT
<213> Conus miles
<400> 607
Cys Cys Asn His Pro Ala Cys Ala Gly Lys Asn Ser Asp Leu Cys
                                    10
<210> 608
<211> 16
<212> PRT
<213> Conus magus
<400> 608
Gly Cys Cys Tyr His Pro Thr Cys His Leu Glu His Ser Asn Leu Cys
                5
<210> 609
<211> 17
<212> PRT
<213> Conus nobilis
<400> 609
Gly Cys Cys Glu Arg Pro Pro Cys Arg Trp Gln Asn Pro Asp Leu Cys
                5
                                    10
Gly
<210> 610
<211> 17
<212> PRT
<213> Conus atlanticus
<400> 610
Thr Cys Cys Ser Arg Pro Thr Cys Arg Met Glu Tyr Pro Glu Leu Cys
                5
Gly
<210> 611
<211> 21
<212> PRT
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<213> Conus quercinus
<400> 611
Asn Glu Cys Cys Asp Asn Pro Pro Cys Lys Ser Ser Asn Pro Asp Leu
                                  10
Cys Asp Trp Arg Ser
           20
<210> 612
<211> 16
<212> PRT
<213> Conus leopardus
<400> 612
Cys Cys Ser Asn Pro Ala Cys Asn Arg Tyr Asn Pro Ala Ile Cys Asp
                                   10
<210> 613
<211> 17
<212> PRT
<213> Conus emaciatus
<400> 613
Asp Cys Cys Asn Phe Pro Ala Cys Ala Ala Ser Asn Pro Gly Leu Cys
Thr
<210> 614
<211> 14
<212> PRT
<213> Conus victor
Cys Cys Ser Ser Pro Pro Cys Phe Ala Ser Asn Pro Ala Cys
<210> 615
<211> 17
<212> PRT
<213> Conus cinereus gubba
<400> 615
Gly Gly Cys Cys Ser Phe Pro Pro Cys Ile Ala Asn Asn Pro Phe Cys
               5
                                   10
Ala
<210> 616
<211> 15
<212> PRT
<213> Conus flavidus
<400> 616
Gly Cys Cys Ser Asn Pro Pro Cys Ser Tyr Leu Asn Pro Ala Cys
                5
                                   10
<210> 617
<211> 16
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```
<212> PRT
<213> Conus emaciatus
<400> 617
Asp Cys Cys Ser Asp Pro Pro Cys Ala His Asn Asn Pro Asp Cys Arg
<210> 618
<211> 17
<212> PRT
<213> Conus generalis
<400> 618
Gly Cys Cys Ser Asn Pro Pro Cys Tyr Ala Asn Asn Gln Ala Tyr Cys
                                    10
Asn
<210> 619
<211> 25
<212> PRT
<213> Conus wittigi
<400> 619
Asp Glu Cys Cys Ala His Pro Ser Cys Trp Lys Ala Glu Asp Leu Ile
                5
Cys Thr Asn Gln Arg Arg Arg Thr Leu
            20
<210> -620
<211> 20
<212> PRT
<213> Conus caracteristicus
<400> 620
Gly Cys Cys Ala Ile Arg Glu Cys Arg Leu Gln Asn Ala Ala Tyr Cys
                5
                                                        15
Gly Gly Ile Ser
<210> 621
<211> 19
<212> PRT
<213> Conus betulinus
<400> 621
Ser Ala Thr Cys Cys Tyr Tyr Pro Pro Cys Tyr Glu Ala Tyr Pro Glu
                                    10
Ser Cys Leu
<210> 622
<211> 6
<212> PRT
<213> Conus magus
<220>
<221> PEPTIDE
```

```
<222> (1)..(6)
<223> Xaa is gamma-carboxy-Glu
<400> 622
Val Tyr Xaa Thr His Pro
<210> 623
<211> 14
<212> PRT
<213> Conus striatus
<400> 623
Trp Ser Trp Arg Met Gly Asn Gly Asp Arg Arg Ser Asp Gln
<210> 624.
<211>
      11
<212> PRT
<213> Conus quercinus
<400> 624
Asp Cys Gln Pro Cys Gly His Asn Val Cys Cys
<210> 625
<211> 29
<212> PRT
<213> Conus geographus
<220>
<221> PEPTIDE
<222>
      (1)..(29)
<223> Xaa is gamma-carboxy-Glu
<400> 625
Lys Phe Leu Ser Gly Gly Phe Lys Xaa Ile Val Cys His Arg Tyr Cys
                                                        15
Ala Lys Gly Ile Ala Lys Glu Phe Cys Asn Cys Pro Asp
            20
<210> 626
<211> 6
<212> PRT
<213> Conus magus
<400> 626
Arg Pro Lys Asn Ser Trp
                5
<210> 627
<211>
      7
<212> PRT
<213> Conus magus
<220>
<221> PEPTIDE
<222>
      (1)..(7)
<223> Xaa is hydroxy-Pro
```

```
<400> 627
Ala Arg Xaa Lys Asn Ser Trp
<210> 628
<211> 6
<212> PRT
<213> Conus magus
<220>
<221> PEPTIDE
<222> (1)..(6)
<223> Xaa is hydroxy-Pro
<400> 628
Arg Xaa Lys Asn Ser Trp
<210> 629
<211> 71
<212> PRT
<213> Conus geographus
<400> 629
Cys Cys Pro Ser Ser Lys Glu Asp Ser Leu Asn Cys Ile Glu Thr Met
Ala Thr Thr Ala Thr Cys Met Lys Ser Asn Lys Gly Glu Ile Tyr Ser
Tyr Ala Cys Gly Tyr Cys Gly Lys Lys Glu Ser Cys Phe Gly Asp
Lys Lys Pro Val Thr Asp Tyr Gln Cys Gln Thr Arg Asn Ile Pro Asn
Pro Cys Gly Gly Ala Ala Leu
<210> 630
<211> 65
<212> PRT
<213> Conus geographus
Asp Glu Ser Lys Cys Asp Arg Cys Asn Cys Ala Glu Leu Arg Ser Ser
Arg Cys Thr Gln Ala Ile Phe Cys Leu Thr Pro Glu Leu Cys Thr Pro
Ser Ile Ser Cys Pro Thr Gly Glu Cys Arg Cys Thr Lys Phe His Gln
Ser Arg Cys Thr Arg Phe Val Glu Cys Val Pro Asn Lys Cys Arg Asp
Ala
65
```

```
<210> 631
<211> 60
<212> PRT
<213> Conus geographus
<400> 631
Asp Asp Ser Tyr Cys Asp Gly Cys Leu Cys Thr Ile Leu Lys Lys Glu
Thr Cys Thr Ser Thr Met Ser Cys Arg Gly Thr Cys Arg Lys Glu Trp
Pro Cys Trp Glu Glu Asp Cys Tyr Cys Thr Glu Ile Gln Gly Gly Ala
Cys Val Thr Pro Ser Glu Cys Lys Pro Gly Glu Cys
<210> 632
<211> 43
<212> PRT
<213> Conus radiatus
<400> 632
Gly Cys Val Tyr Glu Gly Ile Glu Tyr Ser Val Gly Glu Thr Tyr Gln
Ala Asp Cys Asn Thr Cys Arg Cys Asp Gly Phe Asp Leu Ala Thr Cys
Thr Val Ala Gly Cys Thr Gly Phe Gly Pro Glu
<210> 633
<211> 86
<212> PRT
<213> Conus striatus
<400> 633
Ser Gly Pro Ala Asp Cys Cys Arg Met Lys Glu Cys Cys Thr Asp Arg
Val Asn Glu Cys Leu Gln Arg Tyr Ser Gly Arg Glu Asp Lys Phe Val
                               25
Ser Phe Cys Tyr Gln Glu Ala Thr Val Thr Cys Gly Ser Phe Asn Glu
                           40
Ile Val Gly Cys Cys Tyr Gly Tyr Gln Met Cys Met Ile Arg Val Val
Lys Pro Asn Ser Leu Ser Gly Ala His Glu Ala Cys Lys Thr Val Ser
                70
Cys Gly Asn Pro Cys Ala
<210> 634
<211> 24
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```
<212> PRT
<213> Conus purpurascens
<400> 634
Asp Cys Cys Gly Val Lys Leu Glu Met Cys His Pro Cys Leu Cys Asp
                                   10
Asn Ser Cys Lys Asn Tyr Gly Lys
 20
<210> 635
<211>
      36
<212> PRT
<213> Conus geographus
Gly Glu Pro Ile Pro Thr Thr Val Ile Asn Tyr Gly Glu Cys Cys Lys
Asp Pro Ser Cys Trp Val Lys Val Lys Asp Phe Gln Cys Pro Gly Ala
Ser Pro Pro Asn
       35
<210> 636
<211>
      16
<212> PRT
<213> Conus generalis
<400> 636
Gln Cys Cys Thr Phe Cys Asn Phe Gly Cys Gln Pro Cys Cys Val Pro
                                   10
<210> 637
<211> 20
<212> PRT
<213> Conus tessulatus
<400> 637
Asp Gly Cys Pro Pro His Pro Val Pro Gly Met His Lys Cys Met Cys
Thr Asn Thr Cys
<210> 638
<211>
      84
<212> PRT
<213> Conus radiatus
<400> 638
His Pro Thr Lys Pro Cys Met Tyr Cys Ser Phe Gly Gln Cys Val Gly
Pro His Ile Cys Cys Gly Pro Thr Gly Cys Glu Met Gly Thr Ala Glu
Ala Asn Met Cys Ser Glu Glu Asp Glu Asp Pro Ile Pro Cys Gln Val
                           40
```

Phe Gly Ser Asp Cys Ala Leu Asn Asn Pro Asp Asn Ile His Gly His 50 55 60

Cys Val Ala Asp Gly Ile Cys Cys Val Asp Asp Thr Cys Thr Thr His 65 70 75 80

Leu Gly Cys Leu